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Remarks on some Means employed to destroy Tænia, and Expel them from the Human Body. By LOUIS FRANK, M. D.

Notwithstanding the number of remedies which have been recommended, and often found efficacious, in destroying and expelling the different kinds of worms which infest the human intestinal canal, every experienced Physician will agree with me, that all of them are often inadequate to those effects, and particularly as regards the tænia. These circumstances have determined me to publish the present observations on the subject, which, without possessing the merit of absolute novelty, may be of some use to the Practitioner.

Being at Vienna in 1814, I learned from the celebrated helminthologist, Dr. Bremser, that he had for ten years been in the habit of employing, from preference, and with invariable success, Mr. Chabert's remedy for the expulsion of tænia, of which I afterwards gave some account in Italy, in the *Repertorio Medico-Chirurgico di Torino*, 1821. I have had an opportunity of employing this treatment in two cases where the patients had been tormented many years, and in both with complete success; for, seeing them both a year afterwards, I found them both in perfect health, and free from all the inconveniences they had formerly experienced. I ought to say, however, that if I was happy enough to cure these two patients, I was much indebted to their own perseverance, and their truly hero-

ical courage in taking this, the most disagreeable remedy in the world, for several months.

Having, on a future occasion, to treat two patients of less resolution and courage, troubled with tænia, I determined to follow the practice of the English Physicians, and to employ the oil of turpentine in large doses : and having heard of the success of Mr. Bourdier and other French Physicians with the sulphuric æther, either in a mixture or given by means of clyster, I thought the addition of it to the turpentine could not be otherwise than useful. But as I was not long in discovering, that an Italian stomach does not so easily bear what is supportable to that of an Englishman, I consequently determined to employ the following mixture :—half an ounce of gum arabic in powder, in a pound of distilled chamomile water ; causing my patients to take two spoonfuls of mixture morning and evening. Four of the mixtures, taken in succession, dispelled the symptoms caused by these importunate guests, and I had the satisfaction to see my two patients two years afterwards, in the enjoyment of perfect health. I was not equally fortunate with the fifth patient, who was almost worn out by long suffering from tænia : the smallest dose of the mixture excited nausea and vomiting, and I was compelled to think of some other mode of procuring him relief; I therefore ordered him the following :

℞ Seminis Santonici (in pulv.,) ʒss.
Radicis Jalapæ,
Ferri Sulphatis, aa ʒj.
Ol. Cornu. Cervi, gtt. viij.
Syrupi, q. s.

To be made into twenty boluses, one to be taken morning and evening.

When the entire dose of these boluses had been repeated six times, the patient found himself free from the great inconveniences with which he had been troubled ; he gradually regained his good looks, and assured me, after the lapse of a year, that he found himself quite well. In all of these instances, it is worthy of remark, that the tænia was never expelled whole, but in fragments, which were often half putrified : the same thing was very often observed by Dr. Bremser.

Dr. Leberton informs us, that Buchanan and Berton, English Physicians, had sometime previously employed the bark of the root of the pomegranate (punica granatum) against tænia, and with the greatest success. The celebrated Portuguese Physician Gomez, relates fourteen cases in which it successfully expelled the tænia ; and the same remedy has

already been given by several Physicians in Piedmont with similar results. This medicine has not yet been tried more than once at Parma; but the patient had been ill ten years, was much debilitated, and being unable to continue taking it more than four or five days, derived no advantage from it. I am of opinion, however, that we are not always to look for the cause of failure in the circumstances of the patient; for although the mode of prescribing and administering the medicine was the same as that of the above Practitioners, the manner of preparing it might have some effect; since I agree with the learned editor of the Journal de Pharmacie, that it is important to macerate the bark and cause it to swell in cold water before subjecting it to ebullition. It would also be worth while to examine whether or not the rind of the fruit partakes of the properties of the bark of the root, as the fruit is generally much more easy to procure.

Although I have practised medicine for forty years without ever employing any arsenical preparation, yet, considering the great difficulty of expelling the tænia, I should not be decidedly averse to the employment, as a last resource, of the arseniate of potash, or, what would be preferable, the arsenical tincture, in doses of from twenty to twenty-five drops, particularly as I understand this has been found to succeed in the hands of an English Physician. But although I should not object to a trial of these means, made with all the caution required both by the remedy and the circumstances of the patient, I consider it incumbent upon me, at the same time, to warn younger Physicians, who are generally too bold and too confident in their own knowledge, to abstain from this experiment, lest, instead of carrying off the tænia, they should be unfortunate enough to carry off the patient. It is true that I have known an empiric give twenty-five drops of a strong solution of arseniate of potash to cure an intermitting fever, and take the same dose himself with the effect of unloading his stomach and bowels of a mass of impurities; but whatever such rash practitioners may say, I can never avoid suspecting that they often overlooked the victims of their practice.

It is well known, and I have myself observed, that after a drastic purgative, or some kind of vermifuge medicine, and, above all, after a medium dose of oil of turpentine, a more or less considerable portion of the tænia will pass out of the anus; and, if an attempt is made to retain it by force, we can only draw away an inconsiderable portion of it, whilst, sometimes, the protruded portion will all pass up again. On this account, Dr. Cagnola proposed touching this portion with hydrocyanic

acid, imagining that the strong action of so powerful an agent might be so diffused over the whole of the tænia as to kill it. This proposition of which I expressed my approbation, and which I recommended in the same year in the *Repertorio Medico-Chirurgico di Torino*, became known in Germany, and was successfully acted upon by Dr. Garleke : the acid was applied to a portion of tænia about four inches long, which had passed out of the anus, and the tænia almost immediately attempted to retreat, and struggled much on being held, and after an hour was voided dead. Might not an electric shock be similarly applied to kill the tænia ? This has already, it is true, been tried at Vienna, unsuccessfully ; but no ill effects having arisen from it, it might be repeated in further instances, since it is probable, that when the tænia is situated near the anus, it might feel the shock more sensibly than when it is higher.

I shall conclude this short account of the methods employed to expel the tænia from the intestines, by noticing the ingenious process of a Surgeon at St. Petersburgh, who, finding that the sphincter ani was strongly contracted over a portion of tænia, conceived the happy idea of passing this portion of it into a canula which he introduced into the rectum, and then, proceeding in the manner practised successfully for the extracting the tænia whole. This method, though very little known, is not less deserving the attention of the Profession.

As all the remedies hitherto recommended for the expulsion of tænia are more or less violent ; as there is a general persuasion of the necessity for remedies and for a very active treatment to expel the different kinds of it ; we may say, that notwithstanding these means, our success is merely the result of chance, of the possibility of which Dr. Bremser's observations have afforded proof.

II.

Practical Remarks, 'on Acute and Chronic Ophthalmia, Ulcers of the Eye, &c. &c.' On the Remittent Fever, viz. Simple and Complicated. By Thomas O'Halloran, M. D.

Dr O'Halloran, already known to the profession by his Treatises on the Yellow-fever Epidemics of Barcelona and Andalusia, has treated ophthalmia in England, Ireland, France, Spain, America, and the West Indies ; and he now writes to condemn blood-letting, low diet, long confinement, and the exclusion of light and air, in that disease, and to re-

commend the local application of *blue-stone*, and the lunar caustic solution. He tells us, that the greatest part of his information on the subject of disease, has been drawn from observation in the 64th regiment.

The cure of ophthalmia is often a matter of great difficulty to the military surgeon, on account of the impaired constitution of his patient; a circumstance which the civil practitioner, in his estimate of the other's labours, has too commonly overlooked. Indeed, the latter, in curing soldiers who had been discharged as incurable, has too often attributed to his own skill, what, in reality, native climate had effected.

In treating of the inflammatory stage of this disease, Dr. O'Halloran mentions three varieties of it, which, however, he thinks, are but modifications or degrees of the same affection, as they all yield, if attended to in proper time, to the same means of cure.

"The first variety of this disease, as it appeared in the 64th regiment, exhibited redness of the conjunctiva, and lining membranes of the eye-lids. The lachrymal discharge, if it at all increased, was increased so inconsiderably, as scarcely to deserve notice. The turgescence of the vessels of the conjunctiva and upper eye-lids, was slight. It conveyed an imperfect idea of sand interposed between the membranes. The vision was little, if at all, affected.

It commonly yielded to simple remedies in a few days; and relapses were much less frequent than in the other varieties.

In the second variety, the attack is sudden.

"The first symptom which attracts the patient's attention is an increase of the lachrymal secretion, which, as it becomes abundant in quantity, flows over the cheeks, the ducts being incapable of removing it in the usual manner. If the upper lids be examined at this time, although the covering membrane of the ball be free from disease, a villous flocculence is there discernible; even sometimes a thickening, approaching to what is commonly called granulation, chiefly observable towards the inner angle, though occasionally over the whole of the eye-lid. It was this state of the eye-lids (and it in many instances precedes the explosion of the disease on the ball of the eye,) which chiefly directed my attention to the plan of treatment hereafter to be noticed. A thickening of the upper no sooner takes place, than the lower eye-lids become villous and slightly prominent. The sensation of sand, if not synchronous with thickening of the lining membrane of the upper eye-lid, now becomes unpleasant; the patient imagining that the disagreeable feeling he experiences is owing to the lodg-

ment of an extraneous body, between the palpebræ and ball of the eye. As the sensation of intervening sand increases, the watery discharge also increases; and, soon becoming acrid and corrosive, produces a degree of pain, which obliges the patient, unaccustomed to the irritation, to seek relief from friction, the act of which produces redness of the sclerotic coat, and conjunctival membrane, followed by distention of innumerable small vessels. The Meibomian glands, previously in a state of irritation, now increase in size, and discharge a fluid proportionate to their enlargement."

The greater the tumefaction and hardness of the lower eye-lid, the more difficult is the cure, in this form of ophthalmia. The secretion of serum is wonderfully increased, and there is often a defect of vision, from the great quantity of it which is poured into the anterior and posterior chambers of the eye.

The third variety (the purulent) is comparatively complex; but probably it is not, in reality, more dangerous than the second.

In this form also the attack is sudden, not announced by premonitory symptoms; when they do exist, they consist, as in the other form, in a sensation of stiffness or heaviness about the orbits—an inability to move the eye with the accustomed freedom. The eye becomes itchy; and the patient cannot be persuaded but that sand or dirt, as he expresses it, is lodged between the eye-lid and ball of the eye. He endeavours to remove the disagreeable sensation by rubbing; which not producing the expected relief, is immediately succeeded by obtuse pain, augmentation of the sensation of heaviness, and by a flow of fluid resembling tears; which, from being thin and watery at first, is converted into a puriform matter, wholly divested of the acrimony attending the serous discharge, in the second form. If the eye-lids be now examined, a thickening of the lining membrane of the upper is observable, and the lower are villous. As the puriform discharge augments, it becomes dense and tenacious; the capillary vessels on the ball of the eye, and neighbouring parts, are in a state of irritation. This is considerably augmented by rubbing the ball, and the propensity to rub is irresistible. The vessels which nourish the conjunctiva and lining membranes, pour forth a matter of a puriform nature, whilst those of the eye-lids internally, and also of the internal parts of the eye, secrete and discharge a quantity of whey-coloured serum, producing a tumefied state of the eye-lids, and of the ball of the eye, which charac-

terize the disease, and occasion the partial or total loss of vision.

Dr. O'Halloran will not allow that purulent ophthalmia has any connexion whatever with the matter of gonnorrhœa.

The first of these varieties, though in its outset it was occasionally simple, sometimes assumed an alarming character; the second was irregular in its proceeding, and extremely treacherous; but the third was generally regular in its course, and when proper means were employed, a cure was speedily obtained.

"It may be necessary," says Dr. O'Halloran, "to remark before I enter upon a detail of the plan of cure, that I consider ophthalmia in every form to be a local disease, dependent for its production on general causes, which augment the vascular action and secretions of the eye and neighbouring parts, in a similar manner as the secretions of the nasal cavity, &c. are increased during the prevalence of the catarrhal affections; to which, I think, ophthalmia bears considerable analogy."

The following was the plan of cure:—The patient was confined to bed, in a large airy ward, from which light was not excluded.

"He was placed on the spoon scale of diet, was purged with calomel and colocynth, and afterwards with salts. The upper eyelids were examined; and whatever the appearance might be, whether villous, thickened, &c., blue-stone, in substance, was rubbed over the surface, for a longer or shorter time, according to the condition of the membrane. If the eye-lids were thickened, as was often the case, or in a state which oculists call 'granulated,' as occurred sometimes, the passing of the blue-stone over the surface was continued for a considerable time: if the appearance was only villous, a superficial and short application was sufficient. The application of blue-stone to the surface of the everted eye-lid is attended with acute pain, and on one occasion has produced syncope."

The author affirms, that in his hands this has been a remedy superior to every other hitherto employed. Its application, both to the upper and lower eye-lids, should be followed by fomentations, to be repeated four or five times in the twenty-four hours. By the second day, every symptom will be alleviated.

"A change for the better having been thus effected in a few hours, and danger, in such instances, obviated, it will be well,

if the application of the remedy had been only superficial and transient, on the first day, to repeat it on the second; but if it had been severe, and if the slough adheres to the lining membrane, as often happens, where there is great debility of the parts, from over distention of the vessels, it will be well to instil a solution of lunar caustic into the eye in the morning, in the proportion of ten grains to an ounce of water, and to repeat the fomentations, as on the preceding day. A solution of lunar caustic, of the above strength, is an excellent remedy in this disease. It may be used at all periods, and, next to the blue-stone, claims a preference to all others."

It is an admirable auxiliary to the blue stone, in a severe or protracted disease; and Dr. O'Halloran prefers the solution which contains ten grains to an ounce of water. On the second day, he usually gives a purge of Epsom salts, and in the evening, occasionally uses the lunar caustic solution, or the blue-stone, to the lower eye-lid, again repeating the fomentations. On the third day the same practice is followed.

"Under this plan of treatment, varied according to circumstances, more than eighty of one hundred will recover, without the use of other means; and it may be presumed, that, in consequence of the attention which is paid to the upper eyelids, the condition which is commonly, but improperly, called 'granular,' will be prevented; relapses, although frequent, will be comparatively fewer, than where the antiphlogistic plan is pursued; and ulcers, so common where copious bleeding is employed, will seldom appear; and when they do appear, they are of a mild kind, and rarely imply much loss of substance."

Our author next gives a case illustrative of the practice, which is not necessary to detail, as it only serves to show the infinite superiority of the *blue-stone* practice, to the antiphlogistic one. The patient is generally confined about a week; a short period, compared to the confinement of the advocates of depletion; and besides, which is a matter of no little moment, abridges in an extraordinary manner, the labour of the practitioner.

It is necessary to observe, however, that when deep-seated and acute pain, denoted internal disease, blood was abstracted by means of leeches; and afterwards fomentations were applied. The relief obtained was generally temporary. But, at the same time, with the bleeding, powerful astringents must be applied to the diseased part, as they make the collapse of the blood-vessels permanent, which would be otherwise but of

temporary duration. Dr. O'Halloran is persuaded that ophthalmia, in its native form, is a disease of little danger, if "the patient be placed in a *healthy situation, to which air and light have free access.*" The loss of vision, in nine cases out of ten, he thinks, has not been owing to the disease in its own nature. When, therefore, active inflammation is induced from over-distention of the organ, or any other cause, the disease is changed.

"For the removal or cure of this condition, it will be necessary to bleed largely from the arm; and we must here have recourse to the most rigorous means of depletion. If the bursting of the coats of the eye be apprehended from over distention, puncturing the cornea will not only afford relief from pain, but give hope that the disease may be ultimately cured; a circumstance which could not be expected if the evacuation of the fluid be suffered to take place by the forcible rupture of the cornea."

Blisters, our author disapproves of, as he generally found that this increased the local irritation to a great degree. Where they are judged necessary, they should be applied on some distant part.

Pustules or ulcers, forming on the eye at the junction of the conjunctiva with the cornea, should be touched with lunar caustic.

In ophthalmia, in our author's opinion, it is difficult to fix a precise limit to the two stages, acute and chronic. In the acute,

"The action of the arteries is inordinately increased, while that of the veins is stationary or diminished;" and "upon the relative degrees of action in both, depends the nature of the discharge. In chronic ophthalmia, on the other hand, although a state of activity exists in the trunks of the arteries, the blood is torpid in the minute branches; whilst a near approach to stagnation takes place in the veins, external as well as internal. In this case, as well as in the former (the acute,) the discharge of fluid from the eye is considerable; for the glands, whose action is augmented according to the increase of disease and size, emit a fluid in quantity considerably exceeding, perhaps, that which is poured out in the acute stage. If we apply caustic or blue-stone to the upper or under eyelids in the chronic ophthalmia, so as to produce a slough, the vessels, being destitute of power, are unable to throw it off in less than from three to six days; whilst in the acute stage, where the arteries are possessed of high action, the same quantity of slough is ordinarily removed in one night. This is

a fact of practical importance. It furnishes us with the means of ascertaining, whether the case before us be of the acute or chronic character; and no injury can result from the experiment, for blue-stone is equally serviceable in both stages; in addition to this, we also find, that when the disease assumes the chronic form, the veins on the upper eye-lids, forehead, and temples, are gorged with blue blood, and as they appear wholly destitute of activity, the blood which they contain is in a state of demi-coagulation; the arteries, also, of the ball of the eye, are inordinately distended, and hard to the touch; they appear destitute of the powers of propulsion."

Dr. O'Halloran will not allow that granulations ever exist on the eye-lids of ophthalmic patients, and he thinks that nothing can be more injurious than the use of the knife or scissors, for the removal of what has been taken for granulations, and which are simply enlargements of a fungous nature, from the glands and vessels. The glands here mentioned, he thinks, are much more numerous than is commonly imagined; and their enlargement is sometimes the cause, and not the effect, of what is called inflammation. These, united to partly obliterated and over-distended vessels, are formed into a mass, which often acquires a firmness unknown in granulated surfaces.

Chronic ophthalmia, at times, is a disease of difficult management, at least, till the irritation subsides, which in the author's opinion, is often brought on in the army by unfair means. Be that as it may, whenever the disease of the eye-lids assumed a protracted course, the upper eye-lids became thickened and diseased; and as long as this continued, so long was inflammation observable on the ball of the eye and inferior eye-lids.

"For the cure of the thickened state of the eye-lids, commonly denominated 'granular,' it will be necessary to apply blue-stone, in substance, daily, provided the irritation produced by it is of temporary duration; but should it occasion unusual pain, *which rarely happens*, it will be proper to instil on the following day, a solution of lunar caustic into the eye, of the strength of ten grains to an ounce of water, and to foment three or four times in the twenty-four hours. Where blue-stone disagrees, (which is seldom the case,) and the fomentations are unavailing in allaying irritation, or the lunar caustic drops possess but little efficacy against the disease of the eyelids, recourse may be had to lunar caustic in substance, which, when lightly rubbed over the internal surface of the upper or lower eye-lids, frequently removes the irritation, and sometimes even cures the disease."

The caustic, in substance, when applied so as to produce a deep slough, generally did harm ; therefore, as its use is merely to diminish irritability, the slighter its application the better. Sometimes, a respite of its employment for a day or two is advisable, the parts being kept clean with warm or cold water. Dr. O'Halloran thinks he has saved eyes by the caustic, where it had previously done harm.

" There are periods," he observes, " when active remedies should not be applied, and that period appears to be, principally, when lymphous effusion is about to take place on the cornea ; when in consequence of the very great irritation which accompanies that process, we ought simply to bathe the eyes in hot or cold water, and attend to the state of the bowels. After the irritation subsides, which generally happens before the termination of two days, it will be necessary to have recourse to the sulph. cup. and caustic solution, in those cases in which it arises from effusion, in order that an impression may be speedily made, so as to prevent a recurrence of the morbid changes, which, as they may be expected in these cases, should be guarded against, as far as our means and skill permit."

When caustic, or blue-stone in substance, makes the eye-lids bleed it should be discontinued. When the disease has left the upper eye-lid and ball of the eye, a spongy state of the lower lid not unfrequently remains, and resists the most active treatment. Here blue-stone, rubbed severely on the part, and change of air and diet, have been beneficial. Relapses will occur, even where the cure has been perfect.

" The preventive measures against relapse consist in the occasional application of blue-stone to the eye-lids, during the period of convalescence ; and, for this purpose, it would be desirable to confine the convalescents to a separate barrack-room, where, when off duty, the eyes may be examined, with the view of maintaining an excitement in the eye-lids, when a disposition to relapse manifests itself."

In hospitals, there is an ophthalmic air, very prejudicial to the chronic state."

" It is astonishing," continues our author, " how quickly the state of the eye-lids, denominated ' granular,' is removed by the blue-stone, if the subject be not of scrofulous habit, or the eye-lids spongy, watery, or covered with fatty, dry lumps. In the latter case, the knife will be necessary for the removal of the tumours ; after which, a solution of blue-stone will complete the cure. *The case in question is the only one in which, in*

my opinion, the knife is admissible to the internal surface of the eye-lids."

Such is the substance of our author's observations on ophthalmia. The application of sulphate of copper (blue-stone) in that disease is not new ; but it is our duty, notwithstanding, to state Dr. O'Halloran's views upon the subject.

"Blue-stone," he thinks, "has the same effect in this disease, as arsenic or Balsam of Peru have on foul ulcers ; it rouses a new action in the vessels of the part, and thus cures the disease."

He has used a variety of other remedies, both general and local, with little or no effect, and in some instances, with disadvantage ; particularly mercury, given so as to induce salivation.

Dr. O'Halloran has here controverted several of the statements of Mr. Travers ; but upon those points we have not room to enter.

He next favours us with some practical remarks on ulcers of the eye, and on lymphous effusion. His theory of the formation of ulcers on the eye, we must pass over in silence ; but shall extract his observations on the mode of treatment.

"When an ophthalmic patient," he says, "whose eye is ulcerated, is confined in impure or stagnant air, it is impossible to remedy the evil by treatment. Medicine is of little or no avail ; but removal to a pure atmosphere has a sudden and striking effect upon the character of the ulcer ; so striking indeed, that, independent of treatment, I have no hesitation in saying, that to an impure atmosphere, and want of ventilation, many of the lamentable effects, which occur from this disease, in large cities in northern latitudes, are to be ascribed. We find, that some authors recommend the patient to be kept in a dark apartment ; and not only that the light, but even the air be excluded. This practice produces much evil."

"Ulcers on the globe of the eye seldom or never appear, except where the upper eye-lids are implicated ; and whatever might have been the duration of the disease, in addition to the slight application of caustic to the ulcer itself, I conceived that the use of blue-stone to the eye-lids was necessary ; and I have the satisfaction to say, that the good effect was generally evident in less than twenty-four hours. On the next day, whatever might be the state of the ulcer, I dropped a strong solution of caustic into the eye, and repeated it in the evening. Under the alternate use of the sulph. cup. and solut. nit. argent. (viz. ten or twenty grains to the ounce of water,) if the air of the ward was pure, the diet proper, and the state

of the bowels well regulated, the ulcers generally healed in a given time."

If the ulcer is obstinate, it must be touched lightly with the caustic in substance. At other times, Dr. O'Halloran has divided the arterial trunks which communicate with the ulcer; and after fomentations, has touched them with a piece of pointed caustic. Warm fomentations were subsequently employed at times through the day.

Lymphous effusion seldom appeared in the early periods; but in advanced stages, it was generally observed at the superior margin of the cornea, whenever unusual irritation suddenly took place. It was a dusky-coloured, jelly-like substance, and was discharged from a congeries of vessels. It descends till it reaches a given point, to which it seems to adhere. When its course is slow, it seems to be gradually pushed forwards in layers. It covers, sometimes, the whole circumference of the cornea. The cure of this affection is difficult. Topical blood-letting, lunar caustic solution, fomentations, &c. Dr. O'Halloran informs us, were of no avail. In some cases, he applied caustic in substance to the effused lymph, and to the trunks of the vessels which poured it out, and thus arrested the disease. In such cases, it is necessary to attend to the eye-lids.

We now come to the second part of our author's practical remarks, that which treats of REMITTENT FEVER.

"It may be viewed under two forms; namely, the simple, active, and progressive; the complicated, torpid, and congestive. In the simple form of remittent fever, the onset is generally marked by slight pain of the abdomen, which the patient frequently attributes to the drinking of cold water, or to some other trivial cause. This is succeeded by general uneasiness, drowsiness, depression of spirits, giddiness of the head, and not unfrequently by nausea. These feelings are soon followed by cold and chilliness, or fixed or flying pains in the back and loins; or where the sensations of cold and pains in the back are not noticeable, by violent head-ache, nausea, vomiting, and frequently pain in one or the other of the organs within the abdominal cavity. The pain of the abdomen, which is so obscure at first, that the patient can scarcely point out its actual place, increases after the cold stage, which generally continues from three to eight hours, has subsided. The head aches, and there is sometimes a sense of tightness about the eyes, with pain and redness of the ball of the eye, and intolerance of light. The countenance, which was sad, dull, and what may be called abstracted, during the tu-

multuary stage of invasion, becomes flushed, clouded, and distressed with a peculiar expression of weariness not easily described. The tongue is clean during the first stages; it ordinarily changes after a short time, and becomes foul and white; it is sometimes slimy and yellow, sometimes rough, dry, and brown, and in some instances, not perceptibly different from natural. The heat is sometimes ardent, at other times inconsiderable. The salivary secretion are diminished more or less, sometimes almost suspended. There is a bad taste in the mouth, with loathing of food. The stomach is generally, irritable; anguish or acute pain, considerably augmented on pressure, is commonly felt at the præcordia. The abdomen is frequently distended, impatient of pressure, and painful to the touch. (Some of the abdominal contents are invariably affected in this disease; the intestines, if I may judge correctly, are more commonly implicated than the other viscera.) The bowels are constipated; when otherwise, the evacuations are watery, corrosive, and excoriating, sometimes of a bilious green, or blackish colour. The urinary discharge is diminished, sometimes nearly suspended; the colour of the urine is always high; the skin is sometimes dry and constricted, even parched; the impression that it makes on the hand which touches it unpleasant, as pungently irritating; sometimes it is greasy, damp, and clammy. The pulse generally ranges between seventy and eighty; I have observed it as low as twenty-five; it is frequently under forty, full and expanded, seldom constituting what may be called a febrile pulse. Transient, or fixed and deep-seated pains in the lower extremities, are common in this form of disease."

Such are the symptoms which characterize the period of invasion, and the immediate subsequent excitement. They subside at the remission, which is generally noticed in the evening, but they do not disappear; they however, undergo a change about the twenty-fourth hour, all these becoming milder, and a gentle moisture breaking out on the surface, particularly of the upper parts of the body. In a short time, if preventive measures were not speedily resorted to, every symptom became aggravated. This second stage proceeds to a similar termination as the first; and so moves on the disease, till death or a favourable crisis terminates its progress. These symptoms are seen in their most distinct form, in persons of the sanguine temperament.

"Remittent fever is, for the most part, a disease of short duration, when properly and decisively treated: but when palliative measures only are employed, it runs a protracted course,

and it terminates, not unfrequently, in dropsy or visceral obstruction. Yellowness, black vomiting, hæmorrhages from the nose, mouth, &c. are not uncommon in this form of disease, where depletion is not carried to sufficient extent, during the incipent stages."

Signs of crisis are rarely clear and unequivocal, under judicious treatment; but salivation, where calomel has been used, indicates the ostensible subsidence of the febrile process. Critical periods are observed, when the disease has been left to nature.

Every thing shows, that the fever is of an inflammatory character; and it is a very destructive one, when its action is directed to abdominal organs, essential to life. Its proximate cause as Dr. O'Holloran imagines, consists in an unusual impulse of blood, directed upon a part or a series of parts; it would appear, therefore, that blood-letting is the remedy most essential to its recovery.

"It will, however," says our author, "be proper, as a means preparatory to blood-letting, that the patient who labours under this disease be immersed, at admission into the hospital, into a warm bath of high temperature, and that he remain in it fifteen or twenty minutes, or until the whole of the body be perfectly cleansed from impurities, by means of soap, coarse cloths, or flesh-brushes; and when this is done, that he be carefully dried and put to bed. A vein is then to be opened in one or both arms, and the blood allowed to flow until the pulse manifests a decided change in its condition, or until fainting supervene from actual loss of blood."

Blood-letting is here eulogized in the strongest manner by Dr. O'Halloran, who seems to have carried it at times to an appalling length (four pounds at once, even in an apparently emaciated subject;) but he does not think that it will alone, without the other remedial means, remove fever. When the head is much affected, and the pulse strong and full, the patient should be bled in the recumbent posture.

"Until a change for the better be evident in the state of the pulse, or until syncope supervene; after which, a brisk cathartic, composed of calomel and jalap, or the compound extract of colocynth, is to be administered immediately, followed by a solution of salts, with infusion of senna, at an interval of two hours; to which may be added such a quantity of the liquor ammoniæ acetatis, as may act on the skin, while the purgative acts on the bowels."

If these medicines are slow in their effect, clysters must be administered, and an additional purgative given. After this,

if the stomach is very irritable, a large blister should be applied over the epigastric region, and effervescing draughts should be given frequently. If the headache return, after free evacuations, we must apply blisters to the temples, and betwixt the shoulders, and use cold lotions to the head. In the evening of the first day, the warm bath may be repeated; and if the inflammatory symptoms are still strong, the lancet must be again employed. On the second day, or even earlier, calomel and James' powder, in the form of pills, five grains of the former to three or four of the latter, may be given every second hour, and will be found a valuable remedy. It keeps the bowels open, without producing the distressing purging, which is so often the effect of drastic medicines when improperly administered, and besides, by its operation on the system at large, it produces a most salutary effect on the constitution. Of course vomiting must be checked by effervescing draughts, or spiritus Mindereri, with tincture of opium. For the same purpose, our author recommends weak solutions of superacetate of lead, and sulphate of zinc.

"It not unfrequently happens," he observes, "on the second day, notwithstanding every attention has been paid to the measures which have been recommended, that the bowels are affected with flying or fixed pains of the most distressing kind, causing an extraordinary change in the countenance of the patient, which, from being animated, becomes sad and dejected; the pulse contracting, and general restlessness, attended with tenesmus of the most harassing nature, sets in. In such cases, and they are of frequent occurrence, the patient is benefited by fomentations to the abdomen, anodyne enemata, and frictions of the abdomen, with hot stimulating oils; but the medicine upon which we are to place our principal dependence, is *castor oil*, which seems to possess peculiar efficacy, in removing this alarming affection. I have known patients, in multitudes of instances, to have been tormented by pain of the abdomen for hours, and which had resisted a variety of applications, instantly relieved by a dose of castor oil."

In pains of the bowels, threatening enteritis, we have found admirable effects from the same medicine, where it was given in repeated doses, so as to procure very free evacuations; and even in cases where, from hepatic congestion, calomel or the blue pill has, in general, been judged absolutely necessary.

Our author now makes some remarks on the employment of calomel and James' powder, in conjunction, as the propriety of the union has been doubted. After the use of the lancet, he has always found it succeed wonderfully.

"I believe," he says, "the beneficial operation of this medicine may be partly ascribed to its action on the skin and bowels, and partly to the peculiar effect of mercury on the hepatic system, and even on the system of general secretions."

It is however, the real powder of Dr. James, and not the antimonial powder of the London Dispensatory, to which he alludes, for he looks upon the last as good for nothing; and in this opinion he is not singular.

We shall finish this part of the subject with a passage, which, after our author's warm eulogium of blood-letting, will appear, perhaps, a little surprising to the reader.

"Venesection, as I before observed, has a decided superiority over the remedies which have been recommended for the cure of remittent fever; and next to venesection, the combination of calomel and James' powder alluded to, claims, when judiciously administered, the practitioner's attention. I have of late, for experiment, depended solely on the latter remedy for the cure of this disease; and the symptoms of organic congestion and general febrile excitement have, in most cases, undergone a change for the better, when the system became affected by the mineral, after which the patient rapidly convalesced; but although I am satisfied that the disease, generally speaking, is completely under the control of this remedy, yet I am disposed to think that relapses are more common, and chronic visceral diseases more likely to occur, under this mode of treatment than when the lancet is freely employed in the early periods."

Dr. O'Halloran now ends the subject of simple remittent fever, with the opinions of Jackson, Johnson, and Burnett, on blood-letting in this disease, and with a few cases illustrative of his own practice.

We now proceed to that kind of remittent fever, which our author has termed the complicated, torpid, and congestive.

"It is characterized throughout its whole course, especially when the termination is fatal, by partial or general deficiency of vital heat and vascular energy, impaired sensibility, diminution, in some cases almost to privation, of muscular power."

It has many points of resemblance to the *febres algidæ* of authors. Dr. O'Halloran has given a lengthened, and apparently, a very accurate description of its different stages. We must give only a faint sketch of it. The patient is instantly attacked with severe shivering, the pulse at the wrist is scarcely perceptible, there is nausea and vomiting, and often considerable confusion in the mental faculties. These symptoms are alleviated about the eighth hour. Now there is severe

headache, the eye is red and painful, the face and lips are of a deadly paleness, the temperature of the body invariably below the healthy standard, the vomiting becomes much severer, the pulse varies, but in general it is depressed. The ideas are confused, and at times, there is high delirium. About the twenty-fourth or forty-eighth hour, these symptoms are succeeded by a shaking fit, which lasts from one to six hours, and which, without the intervention of a hot stage, often forces out a cold, clammy sweat. The countenance is now grim and overcast, there is a peculiar malignity in the eye, the pulse is irregular and intermitting, and the body exhales a disagreeable odour. The danger is always in proportion to the number and intensity of the cold fits.

When the disease has appeared in the above aggravated form, and has so lasted for two or three days, universal reaction seldom or never takes place. The progress towards dissolution is then extremely rapid, all the symptoms become worse, and convulsions or coma terminate the scene. Death generally happens before the fifth day; but, by active measures, the disease may be protracted to a longer period.

"When the disease terminates favourably, febrile excitement appears at an early period, and the type becomes purely remittent, in the same manner as in the simple form, into which it may be said to be converted. The conversions are reciprocal, the simple form sometimes assuming the congestive; and the congestive, on the contrary, sometimes resolving itself, as it were, into the simple."

This fever, we are told by Dr. O'Halloran, is extremely difficult to manage. The principal indication of cure, is to restore heat and animation to the surface; and before this happens, the use of the lancet is prejudicial, except in rare cases, where the head, it may be presumed, is the seat of congestion. But when reaction has at length taken place, the author is disposed to look upon venesection as the most valuable of remedies.

"It is principal," he observes, "as substracting the impulse from the diseased organs, reproducing balance in the circulating system; and it is moreover auxiliary, as rendering the system susceptible of the impression of remedies, which are calculated to restore a form of action analogous to that of health."

The first step, therefore, is to restore heat.

"For the accomplishment of it, it will be necessary to place the patient in a hot bath of high temperature, and to detain him in it until the body be thoroughly warmed; he should then

be rubbed dry, and covered in bed with more than the usual quantity of clothes. When he is disposed in bed, a purge of calomel and colocynth should be administered immediately; and if the heat of the body be not increased before the termination of two hours from this time, the conjoint use of pills composed of calomel, opium, camphor, and ammonia, with brandy, æther, or stimulating tinctures, should be repeated at short intervals. If these means fail in producing artificial excitement, massive pieces of wood, heated to a high temperature, should be applied to the sides—heated bricks to the feet, and bladders of warm water to the stomach and abdomen."

In this way, artificial fever may be induced; but if not, the bath should be repeated, and the most powerful stimulants administered at short intervals. If the stomach is too irritable, blisters should be applied to the head, epigastrium, &c., artificial heat must be employed, and friction with hot stimulating oils. On the establishment of reaction, the abstraction of a small quantity of blood will be beneficial; which may be repeated, if circumstances are favourable.

"After the first bleeding, it will be prudent to give one scruple of calomel with camphor and opium, which may be repeated three times a day, either by itself, or with effervescing draughts, especially if irritability of the stomach prevail.

"When general febrile action is securely established, and the heat which is equally diffused over the whole surface, is above natural, the abstraction of blood to considerable extent, will be followed by benefit. It will then be proper that calomel, camphor, ammonia, and opium, be given every two hours, with a view of supporting action, counteracting the immediate effects of the lancet, and of affecting the system by the operation of mercury. Where the system is under the impression of mercury, the symptoms of topical congestion subside rapidly in most cases, and the disease assumes the simple form, soon followed by convalescence."

The author concludes the Volume with a few cases of congestive remittent fever, and an Appendix of remarks and cases on fever from inebriation; on continued fever; and on the bilious remittent, as they occur in Gibraltar. In all of them, the treatment is nearly the same as that we have been already noticing: the warm bath, blood-letting, purging, &c. &c.

We now close our analysis of Dr. O'Halloran's remarks. In so far as we have observed, he is a faithful delineator of disease. His practice, however, in the simple remittent fever of the Mediterranean, in so far as blood-letting is concerned, is not new; for we well remember, that at Minorca in 1801,

in fevers of this type, Mr. Gray, of the Naval Hospital at Masion, trusted almost entirely to the lancet for their cure ; and Dr. Irvine, in 1809, made it the ground-work of his practice, in the summer and autumnal fevers of Sicily. We acknowledge, that we have never seen the congestiye remittent, as described by him, in its worst form ; but we have met with fevers similar to that described by Dr. Farrell, in Irvine's Diseases of Sicily, which we believe to be of the same family.—Most of Dr. O'Halloran's cases occurred in summer and autumn, probably from fatigue and exposure to the sun's rays, or from alternations of diurnal heat, and nocturnal cold ; but he has said little about causes.

The execution of the work, which is written in a simple and unaffected style, is creditable to Dr. O'Halloran's literary talents. We have, indeed, observed a few, and but a few, passages, that might have been carped at, but they are not worth mentioning. The passage, however, in lines 13, 14, 15, page 60, might have been made more intelligible.

III.

(From Anderson's Quarterly Journal of the Medical Sciences.)

A Treatise on Moxa, as applicable more particularly to Stiff Joints : illustrated by Cases and Plates : with some general Observations on Spinal Disease. By James Boyle, Surgeon of the Middlesex Infirmary, &c.

Mr. Boyle commences by some remarks on the derivation of the word Moxa, or "the substance," as Dr. Dunglison happily terms it. After some remarks on the various origins to which it has been referred, he suggests one that appears to carry an appearance of considerable probability with it, though, in truth, the affair is not of such consequence, as in any way to merit the space which he has devoted to it.

"In a recent edition," says Mr. Boyle, "of Richardson's Dictionary of Persian, Arabic, and English, edited with great ability (1806) by Dr. Wilkins, in Vol. I. p. 881, may be found, '*muhk*, abolishing, cancelling ; burning, being scorched ; not having the blessing of God.' In the next page may also be found, '*mahkuk*, erased, cancelled.'

"The facility with which the Persico-Arabic language according to the intonation with which it is spoken, assumes variety of signification, from the slightest change in the oral organs, is universally known ; and as the Portuguese had the

earliest communication, in the course of commerce, with the nations in which that language was universally used, it may be supposed, without a great stretch of imagination, that they carried with them some of the most material terms of the language, to serve as a medium of communication with nations farther to the eastward. Hence, in their intercourse with the people of China, Japan, &c., the *muhk* of Arabia or Persia, might have served them to express their knowledge of that practice, which they had observed in those countries, substituting their term *moxa* for the Chinese *kieou*. This construction is clearly borne out by the fact quoted in Dr. Dunglison's introduction, before mentioned ; for it is therein stated, that the word *moxa* is used by the Chinese and Japanese only before strangers, to whom they may wish to make themselves intelligible. As no such term occurs in the writings of the physicians of China or Japan, the conclusion may be fairly drawn, that the word in question was brought in by strangers, likely the Portuguese or Dutch."

After a slight sketch of the history of the moxa, and some general remarks on the application of fire in the treatment of diseases, which the author acknowledges to have, in a great measure, derived from the resources of others, and which, we conceive, might have been just as well dispensed with, he then proceeds to give the results of his personal experience, through the medium of cases. Of these the first is the most interesting, but of such length as to deter us from attempting to transcribe it. The second is somewhat less diffuse, and is as follows :—

" Mrs. B——— had a rheumatic fever, which more particularly affected the right wrist, and caused serious injury to that joint. On being consulted, I learned that the case was of two years' standing, and that almost every surgeon of great notoriety in town, had been advised with, respecting it. Various means had been resorted to, even Mahommed's baths ; in short, very nearly the same variety of practices were gone through, as in the first case ; and in that, the mischievous effects of blisters were particularly conspicuous. On examination, I found flexion and extension perfect, but the rotatory motion of the fore-arm was defective; and action between the fore-arm and carpal bones was altogether wanting. The muscles were so much weakened from having been long idle, that an empty teapot could not be raised without the assistance of the other hand ; nor could that particular motion be performed, which the use of the spoon requires.

" It was now, and it appears with reason, believed, that in-

dependently of thickening of the capsular ligament, the excitement of the blisters, as well as the rheumatic attack, had induced the secretion of an inordinate quantity of coagulable lymph, which being thrown between the interstices of the neighbouring muscles, greatly conduced to the rigid state of the joint. From this view of the case, it next became a consideration, what muscles were most employed in the motion of the fore-arm, which was here defective; this brought to recollection the *pronator*, *quadratus*, and *supinator radii teres*, as the most powerful in effecting pronation and supination; in addition to which, it was ascertained on inquiry, that during inflammation, pain was more acutely felt in the direction of the latter-named muscle, than in any other part of the fore-arm. By this, the practice was regulated, and the *moxa* was applied to these particular muscles, for the purpose of relaxing their contracted fibres, dissolving the probably long-deposited coagulable lymph, and exciting the dormant absorbents. Three or four cylinders of the composition were every day applied, and shampooing was practised for the purpose of restoring the natural rotatory action of the fore-arm and wrist. Strongly camphorated oil was applied by means of friction, and a small flannel bandage was passed, for the purpose of keeping up the increased action thus excited. In the course of three days, an amendment was perceptible; and at the expiration of fifteen days, the powers of the arm were almost perfect: in short, nothing further appeared necessary to complete the cure but perseverance in exercising the muscles, for which instructions were given, the lady being now gone abroad."

In his opinion of the action of moxa, Mr. Boyle differs from Baron Larrey, whose enthusiastic recommendations, and extensive employment of it, render him one of the principal authorities on the subject. The Baron, and, we believe, most of the Continental practitioners, apply it in such a manner, and for such a length of time, as to render it actually a cautery, producing sloughing, ulceration, and suppuration. Hence, he has been induced, naturally enough, to suppose that its beneficial effects are dependent on the counter-irritation and discharge, which it is the means of exciting. Mr. Boyle, as we have already said, takes a different view of the matter.

"We have it," says he, "upon incontestible authority, in addition to mine, that the application of this remedy has been successful in removing painful affections of *nerves*, where no surrounding or secondary irritations could be detected; and where, consequently, discharge or counter-irritation could have no particular influence. In my own practice, *the appli-*

cation is so mild, as not to cause the slightest abrasion of the cuticle, and yet it effects cures, after a failure of all the known remedies in such cases; hence it is clear, that counter-irritation or discharge is by no means a necessary attendant upon its general employment. It appears to me, that there are cases in which *moxa* may be more serviceable, by inducing secondary inflammation, than if the application had been mild; but I believe, that in nineteen cases out of twenty, in which the propriety of that remedy is fully indicated, the supervention of local inflammation would be highly unfavourable to the success of the operation."

As a proof of the comparative mildness of the treatment adopted by Mr. Boyle, he mentions that in one of the cases, the period of breakfasting was selected by the patient, a lady, for the application of the remedy. The good effects of moxa, thus employed, Mr. Boyle seems inclined to refer to the consequent increase of absorption.

"The very rapid manner in which chronic swellings have been observed to subside, after two or three applications of moxa, scarcely causing discoloration of the part acted upon, decidedly proves, that increased absorption is the sole cause of such change. It appears, under these circumstances, that the heat is just sufficient to dissolve recently organized parts, from deposition of coagulable lymph, or morbid thickening of cellular substance, without affecting the circulation; that the absorbents, from the texture of their coats being so much more delicate, and being consequently more sensitive than those of the arteries, are stimulated with greater facility, and will take on a new action from the operation of a cause, which would have no influence over the latter."

Mr. Boyle considers, that the number of moxa cylinders employed, and the duration of their application, should be regulated by the magnitude of the joint, or other part affected, as well as by the degree of individual susceptibility, and the duration of the complaint. He has also ventured to apply it in the vicinity of parts on which Baron Larrey has prohibited its use —such, for instance, as tendons and glands. It must not be forgotten, however, that the moxa is a very different agent in the hands of Mr. Boyle and of the Baron. As applied by the latter, it is a powerful cautery, producing much pain, sloughing, and ulceration; with the former, on the contrary, it is simply a local stimulant, producing a gentle irritation, which may be regulated at pleasure.

As to the mode of application, little explanation is necessary. Various substances have been employed, under the gen-

eral term moxa, for an account of which we must refer to the work itself. That which Mr. Boyle recommends we shall quote, to enable those of our readers who may be so inclined, to repeat his trials for themselves. It is prepared by dissolving an ounce of nitre in a quart of water, and therein saturating a quantity of fine cotton wadding, which being dried and formed into small parcels, is inclosed within paper cylinders, about half an inch in diameter, and one inch in height. It burns in an extremely slow and gentle manner, and only requires being kept dry, to be fit for use at all times.

In preference to any other instrument, Mr. Boyle uses a pair of common dressing forceps, by means of which, the moxa may be held at the distance required by the opinion of the surgeon, or the feelings of the patient. It is sometimes convenient to place a piece of plaster on the skin, with an opening in the centre, in order to guard against the falling of sparks.—The cylinder is to be taken with the forceps, lighted at both ends, and applied within about an inch and a half of the skin, more or less, the burning being kept up by the breath, or the use of a blowpipe. After the application, the parts are to be rubbed with camphorated liniment.

We must decline noticing the remarks on the treatment of diseases of the joints, which, though concise, are generally judicious. As to the main topic, the use of moxa, we conceive that Mr. Boyle has brought forward sufficient proofs of its efficacy, and, at the same time, has done a great deal to promote its general adoption, by showing that the severity of the treatment, which has excited general aversion to the remedy in this country, is by no means essential towards securing its beneficial effects.

IV.

(From the Edinburgh Medical and Surgical Journal.)

An Essay on the Blood, comprehending the chief Circumstances which influence its Coagulation; the Nature of the Buffy Coat; with a Concise View of the State of the Blood in Disease; and an Account of the Powers of a Saturated Solution of Alum, as a Styptic Remedy in Hemorrhage. By CHARLES SCUDAMORE, M. D. F. R. S., &c.

We have to apologize to our readers for not taking earlier notice of this little work. It is announced by Dr. Scudamore as the forerunner of a more extended dissertation on the same

subject, which he undertakes to prosecute more fully if his present Essay should meet with a favourable reception. We have to congratulate him on this offer having been warmly accepted by the medical public, and presume that he does not need any additional encouragement from us to fulfil his part of the bargain. We shall therefore proceed at once, without any general comment, to lay before our readers an analysis of his observations and discoveries.

He commences with a short account of the composition and chemical relations of the blood, adopting the text of Mr. Brande's Manual of Chemistry, and adding an occasional comment. In this preliminary sketch the only thing which requires special notice is a small addition, made by Dr. Scudamore, to our knowledge regarding the composition of the red globules, and the cause of their colour. It is well known that Berzelius, one of the latest investigators of the subject, attributes the colour of the blood to iron, which he has found to form about a 160th part of the globules; but that Mr. Brande, who likewise has recently made experiments of the same nature, could find nothing more than a trace of iron, and ascribes the colour of the blood to "the removal of a portion of carbon and hydrogen from that fluid," and the varieties in its tint to "modifications of animal matter, and not to different states of oxidizement of iron." Dr. Scudamore has endeavoured to detect iron in the colouring matter of the blood, first by subjecting to magnetism the residuum of the clot, dried at the temperature of 212°, and afterwards by incinerating it, treating the ashes with hydrochloric acid, precipitating the solution so formed with ammonia, redissolving the precipitate in hydrochloric acid, and then testing the new solution with the usual reagents. By the first mode he could not detect the existence of a single atom of iron. By the second process its existence was demonstrated distinctly; and his experiments lead him to infer, that the quantity of iron is intermediate between the proportions assigned by Brande and by Berzelius, but nevertheless quite insufficient to account for the colour of the blood. We apprehend no doubt can now be entertained that the colour is owing to some animal principle, not to iron; although, at the same time, on account of the impossibility of procuring it apart from the other elements of the blood, little or nothing is yet known of its nature.

Dr. Scudamore then proceeds to the proper subject of his Essay, and treats in succession of the circumstances which affect the coagulation of blood, and the phenomena which accompany it when variously influenced by them. Thus he is

led to treat of the effect of temperature; of the exclusion of atmospherical air; of the question regarding the extrication of carbonic acid; of the effect of the specific gravity of the blood, and of dilution; of the rate at which it is discharged from the body; of rest and agitation; of varieties in the form, size, and material of the vessel in which it is received; of the presence and absence of the fibrinous coat; of the arterial and venous nature of the blood; of the vital principle; of galvanism and electricity; of various gases, and other chemical agents; of the question of the evolution of heat during coagulation; of the nature of the buffy coat; and lastly, he concludes with a general view of the data procured by the foregoing inquiries, and some applications to medical practice.

1. *Temperature.* Heat promotes, cold retards coagulation. This was well known to Hewson, but he was not aware of the great extent of the influence of cold and heat, particularly of the latter. Blood, which begins to coagulate in four minutes and a half when exposed in a room at 53°, will begin to coagulate in two minutes and a half if kept at a temperature of 98°; and blood, which begins to incrust in four minutes at the latter temperature, will do the same in one minute at the temperature of 120°; while that which coagulates firmly in five minutes in a room moderately cool, will continue quite fluid for twenty minutes at the temperature of 40°, and is not completely coagulated till seventy minutes have expired.

2. *Exposure to the Air.* If the air be excluded from the blood, its coagulation is retarded. This is shown very distinctly by receiving a portion of blood into a bottle and stopping it up immediately; but is still better illustrated by using such an apparatus as prevents the contact of the atmosphere altogether. But it is a singular circumstance, that if the air be removed by placing the blood under the receiver of the air-pump, and exhausting it, the coagulation is rather accelerated than retarded; and this happens although the temperature of the blood is actually lowered several degrees, and with great rapidity. It then occurred to the author to try whether this rapid coagulation might not arise from the more rapid and complete separation of carbonic acid from the blood.

3. Doubts have been entertained with regard to the evolution of carbonic acid gas from the blood during its coagulation. On the one hand Vogel found that this gas might be procured from blood coagulating in the vacuum of the air-pump; Brande, too, observed that it might be procured either in that manner or during spontaneous coagulation; and

Bauer likewise remarked the latter fact in the course of the microscopical observations he made for Sir Everard Home.—On the other hand, Dr. John Davy tried unsuccessfully to procure it by filling a jar with fluid blood, inverting it in a saucer of blood or mercury, and allowing the coagulation to go on sometimes naturally, sometimes in the vacuum of the air-pump; and Dr. Duncan, junior, informs us, that he has repeated Dr. Davy's experiment on natural coagulation, and obtained the same result. The experiments of Dr. Scudamore are in favour of the results obtained by Vogel, Brande, and Bauer: They show that carbonic acid is evolved from coagulating blood under some circumstances; but he has not determined what these circumstances are; that is, he has not attempted to account for the failure of other eminent chemists in endeavouring to detect it.

He has found that, if a cup containing blood be put under a bell-glass, and in a saucer filled with lime water, the lime-water becomes covered with a distinct pellicle, much thicker than takes place under the jar without blood; and that a much thicker pellicle is formed and in a much shorter time when the cup and saucer are placed in the vacuum of the air-pump. The close relation which subsists between the coagulation and the escape of the carbonic acid was shown very beautifully by an experiment, in which the blood was reduced to the temperature of 40°, and then heated by successive degrees by transferring it into warm cups, and placing it each time in a saucer of fresh lime-water under a bell-jar: As long as the lime-water showed no crust, the blood continued fluid; but whenever the crust began to appear, the coagulation commenced; each augmentation of temperature strengthened the coagulation and caused a new crust on the lime water; and, at last, when the coagulation was complete, the lime-water ceased to be covered with a pellicle. There can be no question, therefore, of the connection between the two phenomena. At the same time this connection does not prove the inference Dr. Scudamore has drawn from it,—that coagulation of the blood is inseparably connected with it, and cannot take place without it. In fact, it is well known that blood will coagulate in a bottle filled with it in such a manner that no gas can escape.

4. *Specific Gravity.* Blood has the greatest specific gravity when it is in its healthiest state, and that which has the highest specific gravity coagulates the soonest. But the specific gravity does not vary much,—the range, according to Dr. Scudamore, being from 1039 to 1059. That of arterial blood

is perhaps somewhat greater than that of venous blood. Dilution with water retards coagulation.

5. Rapidity of its flow from the vein also retards it: Blood, which gives only a pellicle in five minutes when it is drawn in two minutes, will be completely coagulated in a minute and a half, when it is drawn twice as slow. Dr. Scudamore attributes the difference to the carbonic acid escaping more rapidly in the latter case.

6. *Rest and Agitation.* Gentle agitation he supposes to act in a similar manner; the blood coagulating somewhat sooner than when left at rest. Brisk agitation produces a different effect; the fibrin is then separated more completely, and the clot is nearly destitute of red globules.

7. *Form, Size, and Material of the Vessels.* Whatever accelerates the cooling of the blood retards its coagulation.—Hence it coagulates most slowly in small shallow vessels made of some material which conducts heat well. If the blood is kept at the temperature of 94° by artificial heat, its period of coagulation is the same in every kind of vessel.

8. *Relation between the Fibrinous Coat and the Rapidity of Coagulation.* Dr. Scudamore seems to have uniformly found that blood which showed the fibrinous crust was slow in coagulating. At the same time he observes, it is often coagulated near the bottom of the cup, when, to judge by the appearance of the surface, it is quite fluid. Notwithstanding his experiments, doubts may still be entertained whether slow coagulation is the sole or principal cause of the appearance of the buffy coat. Several experimenters have observed it when the blood congealed rapidly, and we may add, that we have seen it begin to concrete on the surface in two minutes and a half, and yet show a strong and thick fibrinous crust. It has often appeared to us, that in blood of that kind the relative specific gravity of the serum and red globules was considerably altered, so that the latter sank more quickly than in healthy blood.

9. *Effect of the Arterial and Venous Nature of the Blood.* On this subject his experiments are not decisive. Sometimes the one, sometimes the other coagulated soonest; and that, according to the rapidity of their discharge from the vessels.

10. *Influence of the Vital Principle.* No question can be made as to the effect of the vital principle in retarding coagulation. In all parts of the living body extravasated blood remains long fluid; and various experimenters have also remarked that it will remain so several hours, when insulated in a portion of its proper vessels by ligatures.

11. *Electricity* is generally believed to prevent coagulation altogether. But Dr. Scudamore has shown this to be a mistake; or at least that the fact is not universal, and that it does not depend on any effect produced by this agent on the blood itself. For when electric discharges are transmitted through fresh drawn blood, it concretes as soon, and rather more firmly than that which is not electrified; and in animals killed by the discharge of a powerful Leyden battery, he always found the blood in the vessels coagulated. Galvanism also accelerate somewhat its coagulation. Both agents cause a slight increase in the temperature of the blood, sometimes amounting to two degrees; and galvanism, of course, decomposes it in part.

12. *Influence of various Gases and other Chemical Agents.* Oxygen gas accelerates coagulation, carbonic acid retards, but cannot prevent it. The only other gases whose effects were tried by Dr. Scudamore, were hydrogen and azote; but his experiments with them do not appear sufficiently precise. It is a remarkable fact, that during coagulation in oxygen gas, more heat is evolved than when it takes place in the air, and more in the latter case than during coagulation in carbonic acid gas. With regard to other chemical agents, it appears that a saturated solution of the sulphates of soda and potass, borax, or tartrate of soda, renders the coagulum softer than it would be otherwise; that a similar solution of the muriates of soda or ammonia, and the nitrate of potass, and a diluted solution of pure potass, preserve it altogether fluid; that the hydrocyanic acid and extract of belladonna, do not affect its coagulation; that diluted solutions of the sulphates of zinc, copper, and alumina, promote coagulation, and that the sulphate of alumina is the most energetic of the styptics.

13. *Is heat evolved during coagulation?*—We have hinted in the last paragraph, at some facts which lead to the conclusion that heat is evolved; but in the present, the author examines the question carefully. It was natural to expect *a priori* that some heat would be evolved during the coagulation of blood, as the process consists in the passage of a fluid into the solid state. Accordingly, the late Dr. Gordon of this city found, that a difference of 12 degrees might often be detected between the temperature of the fluid part of the blood, and of that part which was coagulating. But on the other hand, Dr. John Davy observed that the blood, during coagulation, did not differ much from water in its rate of cooling; and suggested, that the small quantity of fluid matter which is solidified, would never cause so great an evolution of heat as that re-

marked by Gordon. Dr. Scudamore confirms these remarks, relative to the experiments of Gordon; who, he shows, had been deceived, by having always transferred his thermometer to the lower stratum of the blood, which was colder, not because the upper had coagulated and become warmer, but because it had lost a part of its own heat by contact with the bottom of the cup. But Dr. Scudamore corrects also the assertion of Davy; and proves, by a series of well conducted experiments, not only that the rate of cooling is considerably slower during coagulation than it must have been, if no heat was evolved; but likewise that, in two or three minutes after the blood is drawn, at a period corresponding exactly with the commencement of coagulation, and long after the thermometer has acquired steadily the temperature of the blood, a rise of one degree may be uniformly observed.

14. *Of the Fibrinous or Buffy Coat.*—This part of the Essay is intended to ascertain whether the proportion of fibrin is greater in buffy than in natural blood. The author finds, that in healthy blood the fibrin is pretty uniformly diffused throughout the different parts of the clot: but that, whenever it assumes the buffy appearance, the proportion of fibrin is always greatest near the surface. Thus, in one instance, he found the upper colourless stratum consisted of 16 1-2 grains of dry fibrin for every 1000 of the clot, while the lower coloured stratum contained only 4 1-6; and in another case the proportion was 20 1-2 to 3 1-3 only.—The quantity of fibrin is always very much increased in blood which assumes the fibrinous coat.—The clot of healthy blood contains from 2.37 to 4.43 grains of dry fibrin; but when it assumes the fibrinous coat, the quantity varies, according to the strength and firmness of the coat, from 7 to 11, 12, and even 13 3-4 grains. It is a very extraordinary circumstance, that when the blood puts on the fibrinous appearance, the proportion of fibrin decreases in the progressive stages of the same bleeding. Thus, in an instance in which two cups were taken in an equal stream, the former of which was sizy, and the latter not so, the proportion of fibrin to 1000 grains of the clot was 10.33 in the first cup, and 6.25 in the second; and in another instance of the same kind, the proportion was 10.95 to 5.75. Dr. Scudamore has not been able to detect any uniform difference between venous and arterial blood in the quantity of their fibrin; in one case the former, in another the latter, contained an eighth part more.—The most violent exercise does not increase sensibly the proportion of fibrin. A stout young man was bled before and after violent exercise;

and the quantity of dry fibrin in 1000 grains of the clot was 4.27 grains in the former, 3.86 in the latter portion.

15. *General Conclusions and Medical Observations.*—Under the head of General Conclusions, besides a summation of the results, such as we have detailed them, he considers Sir E. Home's hypothesis of the organization of blood thrown out in the living body—the cause of the coagulation of the blood—and the question of its vitality.

Our readers are aware, that some years ago Sir E. Home, resting on the proofs supplied him by Mr. Brande of the evolution of carbonic acid from the blood during its coagulation, and on the appearance of tubes caused in a clot by placing it in a saucer containing injection-matter, and then removing the atmospheric pressure—suggested the extraordinary, wild hypothesis, that this is the mode by which clots in the living body are organized. Our author criticizes Sir E.'s "novel and ingenious *theory*," as he humanely calls it; and completely succeeds, according to our notion, in showing its insufficiency. In the first place, he proves experimentally, that the quantity of carbonic acid evolved by the blood during coagulation, instead of being two cubic inches for every ounce, as Brande thought, never exceeds the 12th part of a cubic inch, and is therefore insufficient in quantity to form Sir Everard's tubes. Secondly, he suggests, that the channels formed of a succession of communicating globules by the removal of the atmospheric pressure, cannot possibly be expected to arise during the "gentle natural action of the evolution of carbonic acid gas in the ordinary coagulation of the blood."—Thirdly, he found, that "the extrication of carbonic acid gas in blood coagulating or coagulated, when effected under the exhausted receiver of the air-pump, so breaks up the continuity of the mass, that it may well be supposed to produce *fissures or channels* capable of receiving size injection;" but remarks, that this is completely artificial, and not an imitation of what takes place when blood coagulates naturally.

Our author's opinion of the cause of the coagulation of the blood is, that the fibrin can remain fluid only when it is in a state of intimate mixture with red particles, serum, and carbonic acid; that the first essential step is the giving off the carbonic acid; and that the fibrin solidifies, as its characteristic property when no longer in intimate union with the other parts of the blood in living vessels. This theory, we apprehend, is founded in part on an erroneous fact; and when abstraction is made of the part alluded to, the remainder is nothing more than a more round-about way of saying that the

blood coagulates. It is clearly shown by his experiments, that carbonic acid is often given out by the blood during coagulation; but the experiments of Dr. John Davy and Dr. Duncan likewise show, that coagulation may take place in certain circumstances, though the carbonic acid is retained. To say that the blood coagulates, because the fibrin must become solid when not intimately united with the other principles of the blood, is no more an explanation of the phenomenon than the rigmarole of words which John Hunter drew together to account for it. It is merely an expression for the fact in different terms, or perhaps one link in the chain which is to lead us to the actual cause. For our author has still to discover how this intimate union is kept up in the living vessels. It is not certainly by mere agitation; for no agitation will prevent the fibrin from separating, when the blood is removed from the body; and blood will continue long fluid, when insulated in a living vessel by ligatures, and therefore completely at rest. In short, in order to maintain its fluidity, it must be acted on in some way or other by the vital principle; it must either possess vitality itself, or must receive some impression from the living organs in which it circulates; and the loss of this vitality or this impression, is the first essential step towards its coagulation. As connected with this topic, our author endeavours to account for the singular fact observed by him, of the fibrin occasionally decreasing in proportion during the progress of the same venesection. We have seen, that when the blood is sizy at the beginning, and not so towards the end of the bleeding, the proportion may be diminished to one half. He conceives, that the cause of the increased proportion of fibrin in sizy blood, is owing to its not being distributed in its healthy proportion to the fibrous textures, and that this healthy distribution may be suddenly restored during the progress of venesection.

Next follows a short comment on the theory of Mr. John Hunter, regarding the vitality of the blood. Dr. Scudamore appears successful in proving, that the arguments adduced by Mr. Hunter in support of his theory are inconclusive. He likewise states some pretty strong arguments to show that it is untenable; at least that the phenomena which Hunter thought was an operation of life, we should be rather disposed to consider as the consequence of the loss of vitality, or, more properly speaking, of certain impressions produced by the vitality of the organs in which it circulates; and Dr. Scudamore shows, that it cannot be a vital proces, as it is, on the one hand, prevented by trivial causes, which have no influence on

life elsewhere, and, on the other hand, is not prevented by some agents which are surely and most suddenly fatal to the vitality of every other part of the body.

The last part of the Essay relates to the medical considerations, which arise out of the experimental part of it. Here he first sums up the several circumstances which must be attended to in the examination of the blood, and offers some remarks on each successively; then adds some conjectures on the super-abundance of carbonic acid in the blood, as a probable cause of disease, and concludes with an inquiry into the utility of alum as a styptic.

"In the examination of the blood in venesection, the practioner must direct his attention to several circumstances: among which the following may be mentioned as the principal; the kind of orifice; the stream in which the blood flows; the state of the pulse during the bleeding; the apparent density, colour and other appearances of the blood on its being received in the basin; the time in which it coagulates; the external appearance of the coagulated blood; the texture of the coagulum; the comparative condition of the several portions of blood in different cups; the appearance and quality of the serum."—Most of these subjects have been already noticed; but a few of them will require further attention. Dr. Scudamore calls the attention of practitioners to the different tints caused in the colour of the blood by disease, with the view, it is presumed, of discovering what connection subsists between the various tints, and the propriety of resorting to the lancet. The blood is dark, he observes, when the arm is kept long bound up, or when the breathing is obstructed. In all inflammations the venous blood is more florid than natural.—Its density may be judged of by the eye; but the surest criterion is its rapidity of coagulation, the densest blood being that which coagulates soonest.—The quantity of serum depends on the degree of contraction of the clot; little is known of the indications deducible from its characters. The buffy coat is not the best criterion of the state of the blood, and action of the vessels; for, on the one hand, where there is not much general inflammatory action, the buffy coat may not be formed, although the fibrin is preternaturally abundant; and, on the other hand, in diseases attended with much musular extenuation, the fibrin abounds so as to cause the blood to assume a buffy coat, although no decided inflammation exists any where. It is likewise well known, that in the latter stages of some protracted forms of the internal phlegmasiæ, the blood will generally show a strong buffy coat, although the action of the vessels is

by no means such as to warrant or require venesection. Without undervaluing too much, therefore, the indications which the physician is in the practice of deriving from this appearance, our author suggests, that more certain information may be got by examining the texture than the mere surface of the blood. When its texture is firm, and, still more, when its edges are turned inwards, strong action of the vessels is indicated; and *vice versa*.

Dr. Scudamore has found, that the quantity of carbonic acid which may be evolved from the blood, varies in different individuals; and is greater after than before meals. He hints that it may be increased by disease. This is not improbable; for it is well known, that, in some dead bodies, considerable quantities of gas are found in the vessels, while, in general, none at all is to be seen. "I have frequently heard patients complain," continues he, "of a peculiar sensation of fullness in the veins, as if they were distended with air. When the case is urgent, not only the veins, but the skin also, gives the sensation of tightness and distention. It seems to me highly probable, that in these circumstances there is an excess of carbonic acid in the blood; and if this opinion be correct, it would surely be useful to prohibit all liquors which contain much fixed air."

Dr. Scudamore was led to infer, from his experiments on blood newly drawn from the body, that a saturated solution of alum is more effectual than any other styptic in arresting hemorrhage. Accordingly, on extending his experiments to blood issuing from the living body of animals, he found, that hemorrhage from arteries, which saturated solutions of acetate of lead, sulphate of copper, sulphate of zinc, and nitrate of silver, as well as tincture of galls, diluted nitric acid, and Ruspini's styptic, could not check, was arrested in a quarter of a minute, when a saturated solution of alum was poured on the mouths of the divided vessels. Since making these observations, he has had several opportunities of trying it on man; and the result was such as he anticipated. In one instance, by the laying open of a carbuncle, two arteries were divided, from which a pint of blood was lost in a few minutes, and which all ordinary means failed to plug up; yet the application of a lint compress, dipped in the alum solution, checked the hemorrhage immediately. In another instance, in which the hemorrhage was from a wounded temporal artery, and could not be arrested by dividing the vessel, by pressure, or by other styptics, the alum was equally efficacious; and he likewise found it singularly useful in a case of troublesome he-

morrhage from a leech-bite, inflicted on an internal hemorrhoid, He suggests farther, that it may be very useful in some cases of hemorrhage after delivery. The solution should always be saturated, and ought to be applied warm, if possible. Lastly, he likewise proposes to employ it inwardly, as an astringent, in internal hemorrhage. Experience alone can determine whether it possess, in this respect, any advantage over the other supposed astringents. At all events, it has the merit of being harmless, which is more than can be said of the rest; and it certainly deserves to be fairly tried.

MONTHLY SUMMARY

OF PRACTICAL MEDICINE.

I. ANATOMY AND PHYSIOLOGY.

Dr. Williams *on Obstruction of Blood in the Lungs.*

Dr. Williams has made some interesting observations on this subject, from which he draws the following corrollaries:

1*st*, The blood is obstructed in its passage through the lungs, on suspension of respiration, while its circulation through the other parts of the body continues.

2*d*, The obstruction of the blood in the lungs, on suspension of respiration, is not occasioned by a mechanical cause. This is proved by the flow of blood through the lungs being suddenly arrested in the experiments detailed by the author, without any subsidence of this organ, while the circulation was carried on vigorously through the other parts of the body.

3*d*, The obstruction of blood in the lungs, on suspension of respiration, arises from the deprivation of pure atmospheric air.

5*th*, The blood, which is found *post mortem* in the left auricle and ventricle, is the remnant after the last systole, and the subsequent draining of the pulmonary veins.

5*th*, The obstruction of blood in the lungs, on suspension of respiration, is one of the principal causes of the vacuity after death of the system circulating arterial blood.

6*th*, The immediate cause of the cessation of the action of

the heart is a privation of its natural stimulus, arising from the obstruction of the blood in the lungs.—*Annals of Philos.*

II. SURGERY AND MIDWIFERY.

Dr. Benedict's *Case of Excision of a Large Tumour.*

The records of surgery abound with histories of enormous fatty tumors, removed from various parts of the human body: in fact, such an operation is more formidable in appearance than reality; that is, if good sound surgery is employed after the excision,—if nature has fair play,—and the surface of the wound and its edges are placed in exact contact, all will do well, and that in a very short space of time.

The case that has elicited these remarks, is one related by Dr. Benedict, of Breslau: it occurred in the person of a woman, aged forty-seven; and the tumour is described as extending from the lower part of the lower blade to below the sacrum, being upwards of twenty-two inches in length, and twenty in breadth. The whole tumour was moveable, and the skin (excepting at the most projecting part, where there were many varicose vessels,) was natural; there was an ulcer on the surface, produced by the injudicious meddling of a quack. There is no necessity for our describing this operation: the whole was removed, and in little more than a month the patient was was entirely well, notwithstanding some sloughing took place at the upper part of the wound, and some collections of matter, requiring to be opened, at the lower part. The tumour weighed thirteen pounds.—*Lond. Med. and Phys. Journal.*

Dr. Clever's *Case of Lithotomy, performed on himself.*

We might, perhaps, pass over entirely the operation of Lithotomy as performed by M. Clever upon himself; but that, as a point of curiosity, it demands notice, and on one account may be instructive,—though we hope and believe not to any English surgeon. The story of this case is as follows:—M. Clever had suffered from the stone from his infancy, and had undergone the operation five times, and was now enduring, for the sixth time, the torments of this painful malady: he, therefore, determined on immediately relieving himself: and

placing himself before a looking-glass, and raising the scrotum with one hand, he plunged the point of a bistoury perpendicularly into that part where the operation is usually performed; after resting a moment, he prolonged the incision through the integuments, and put his finger into the wound, hoping to feel the stone, but he found the division he had made imperfect; he therefore again had recourse to his bistoury and completed the section: then, with the assistance at first of one finger, and afterwards of two, he searched for and extracted a stone as big as a large nut. The urine flowed in abundance; he dressed his wound, and slept soundly. The next day, M. Clever informs us, he was as gay as if nothing had happened. Many medical men, and others whom he knew, astonished at the account they had heard, went to see him, in order to be assured of the fact; and among the number was Professor Beclard, who examined the stone. M. Clever recovered perfectly.—The stone, when examined, appeared to owe its formation to a piece of sponge-tent, with which the wound in the former operation had been plugged. And this is the practical lesson to be deduced from the story: for what purpose could be answered by putting sponge-tent into a wound after lithotomy? Did the surgeon fear the healing of the external wound before the bladder had united? But we need not make any comment upon such practice.—*Lond. Med. and Phys. Journal.*

III. PATHOLOGY AND THERAPEUTICS.

Mr. Mackenzie *on the Symptoms and Cure of Croup.*

The extreme aptness in mucous membranes, when inflamed, to secrete pus, and in serous membranes to secrete fibrin or coagulable lymph, is generally regarded among the most striking characters of these two structures. It is comparatively so rare an occurrence for a serous membrane to secrete puriform fluid, or for a mucous membrane to become coated by a fibrinous exudation, that we are liable to overlook the fact, till we recal to mind the appearances displayed on dissection, in cases of croup on the one hand, and of puerperal peritonitis on the other. Most cases of peritonitis, and also of pleuritis, and indeed of the inflammations of serous membranes generally, are attended, if allowed to run their course, by an exudation of fibrin; but occasionally in pleuritis, and commonly in severe cases of puerperal peritonitis, pus, more or less diluted, flows from the inflamed surfaces. Slight inflam-

mation, such as what occurs in a common cold, pours from the membrane of the windpipe, throat, and nostrils, a copious secretion of puriform mucus; but in that peculiar disease called croup, the same membrane secretes a crust of fibrin; and as far as I know, this is the only instance in the human subject, of a mucous membrane being affected with what may be called a fibrinous inflammation. In experiments upon the inferior animals, something similar is said to take place in other parts of the mucous system; the conjunctiva, for example, appears to secrete fibrin, when inflamed by exposure to the vapour of muriatic acid, and the rectum, when inflamed by irritating injections.

The general symptoms of croup, the extreme danger of the disease, the frequent inefficacy even of the most active and best directed treatment, and the striking appearances, on dissection, are familiar to every medical practitioner. There is one fact however, in the history of this disease, which has not as yet been noticed by authors on the subject; and one means of treatment, which has been repeatedly successful in my own hands, as well as in the hands of those from whom I first received my information of its utility, which I have reason to believe has not come into general use.

The fact to which I refer is, that the exudation of fibrin very frequently commences on the surface of the tonsils, thence spreads along the arches of the palate, coats the posterior surface of the *velum palati*, sometimes surrounds and incloses the uvula; and at last descending, covers the internal surface of the pharnyx and œsophagus, the larynx and trachea. That this is the frequent progress of the fibrinous exudation, I am convinced, from the careful and repeated observation of the phenomena during life, and upon dissection.

What is of much more importance, however, than the observation of a pathological fact, is the ascertained efficacy of a means of cure for this disease. Not merely have I repeatedly found the application of a solution of nitrate of silver completely successful in removing the fibrinous crust, covering the tonsils, velum and uvula, but I have been led to attribute the rapid alleviation and unltimate removal of all the other symptoms to this remedy, even in cases in which, from the severity and peculiar signs of the complaint, I had no doubt that fibrin had already exuded from the lining membrane of the larynx and trachea.

The solution which I employ,' is a scruple of nitrate of silver in an ounce of distilled water. By means of a large camel hair pencil, this solution is to be freely applied, once or twice a day, according to the severity of the symptoms

to the whole lining membranes of the fauces. The surface of the tonsils, or wherever else the fibrinous crust is actually in view, will of course be particularly attended to; but I do not hesitate to push the pencil to the lower part of the pharynx. This remedy, so far from being productive of any irritation, beyond the mere mechanical and temporary one attending its employment, uniformly alleviates the symptoms of croup, such as the difficult respiration, the barking cough, and the peculiar anxiety of the little patient. It has evidently such an effect upon the diseased surfaces, both those which it actually touches, and those which are continous, as to induce them to throw off the false membrane by which they are covered, and it appears also to prevent the farther progress of the exudation.—*Edinburgh Med. and Surgical Journal.*

Dr. Borthwick *on Tic Douloureux.*

Having had several opportunities of treating neuralgic affections since the case which I communicated, in a late Number of the Edinburgh Journal, I am disposed to offer a few short notices of cases, which I consider not altogether unworthy of attention.

While in attendance upon a labouring man, Thomas M'Gill, a patient of the Royal Dispensary, his wife requested of me to give her something for bad headaches, to which she was subject, and which as she stated, rendered her existence miserable. She was at the moment in pain, and seemed in a very pitiable state. Her headache was periodical, and she could tell within five minutes the time of its approach. She had used a variety of remedies, and was much debilitated by successive blisters, laxatives, and blood-letting. On examining into her case, it evidently appeared to be a neuralgic affection, her greatest agony being seated above the eye-brows, in and about each supra-orbital foramen.

As she had undergone every other plan of treatment, I prescribed the carbonate of iron, in small doses, for a day or two, and desired her to call on me in three or four days, which she did, and assured me that the headaches were already greatly lessened. I then ordered her to take a drachm of the iron three times daily, for a week; and at the expiration of this time, she came to me with a countenance beaming with joy, and declared, that her pain had totally ceased for two days past. I desired her to persevere in the use of the medicine

for ten days or a fortnight, which she faithfully did, and has not had a return of headache for ten months.

I was consulted by a woman, æt, 67, who had come to town on a visit to her son, a shopkeeper in Edinburgh. She could scarcely move in consequence of a violent attack of lumbago, to which for years she had been a martyr. In a few days the pain across her loins was relieved, but it settled with great severity in the left hip, constituting sciatica. Having in vain tried the routine of baths, blisters, cupping, and diaphoretic medicines, it occurred to me that the nerves in this part might partake of tic douloureux, as well as those in the face; and I resolved upon giving a trial to the carbonate of iron, which produced a very great amendment, so much so, that after a month's use of it, in drachm doses three times daily, she generally laid aside her stick and crutch, and has continued well for a longer period (seven months) than she has experienced for several years.

James Law, sail-cloth weaver, æt. 40 complained of most violent headachs, which attacked him periodically, and which incapacitated him from his business. The paroxysms were dreadfully severe, and of two days' duration. He had, as may be supposed, tried many remedies, but hitherto without effect. This case seemed a fair one for giving a trial of the iron, and he was ordered scruple doses three or four times daily, and subsequently drachm doses, several of which he took with him to the country; and, on his return after some weeks he called to inform me, that his headaches had gradually lessened in severity, that the intervals free from pain were much longer, and that he had been for some time quite well. The change in this man's general aspect was most striking.

I still feel disinclined to enter into any speculative reasoning on the pathology of neuralgic affections or the *modus operandi* of medicine in relieving them. I have, as yet, only to do with facts; but I have no doubt, that the united exertions of practitioners in treating this class of diseases, will throw light on so very interesting a subject, and enable us to understand upon what principle such very speedy effects are produced in the animal economy. For it is now almost a settled point in practice, that iron will relieve, if not cure, tic douloureux (neuralgic affections generally speaking,) as certainly and as speedily as quicksilver, in particular forms, will relieve and cure the *lues venerea*. The extent to which the *rubigo ferri* may be carried varies in several instances, and of course depends upon peculiar states of the stomach, and I have given it in a dose of a drachm and a half four times daily in severe

cases; and at this moment a very tedious and aggravated case is getting well under this amount. I shall probably have permission to publish this case, which is the worst I have witnessed. I must again offer my tribute of acknowledgment to Mr. Hutchinson for having encouraged the profession to the extended use of the remedy in question.—*Ed. Med. & Surg. Journal.*

Dr. Rehman *on the Cholera Morbus of India.*

(*Continued from page* 55.)

We possess in Europe, respecting the progess of this disease in Persia, no, or only very uncertain, information. At least it was not mentioned in any of the Reports, that the cholera had appeared, in the summer of 1822, in the northern parts of the empire, and even at Tauris, as well as in the provinces bordering on Russia. It was only by the gazette that we were informed that it existed in some parts of the south of Persia, and that it had extended into Asiatic Turkey, through Bagdad, as far as Aleppo. Wherefore at the time when every one supposed that the disease was existing only on the borders of the Euphrates, or in the wild deserts between Asia and Africa, we were surprised at the receipt of the following brief Report from Georgia, on the 17th of August last year (1823,) dated Tiflis, July 17th. "1. That the disease known by the name of Cholera had appeared in the month of May in the country, about the Talischinski canal. 2. That it had destroyed four men in the small fortress of Lenkoran, situated on the border of the Caspian Sea,—had extended from that place into the province of Schirvan,—and had principally showed itself in the town of Sallian, on the river Kur, where it had committed extensive ravages; and, lastly, That it had spread farther into the neighbouring countries.

The importance of this information was immediately perceived, and directly the following orders were issued: 1. That some physicians destined for the civil service are to be sent into Georgia from the Medico-Chirurgical Academy, for the purpose of treating this disease, to be under the direction of the Governor-General, and the inspection of the most experienced practitioners. This measure was rendered necessary, because, in the distant parts of the empire, there was a scarcity of medical men. 2. That a meeting of the medical council be summoned, for the purpose of drawing up some observations and instructions respecting this disease, and which were

to be sent to all the medical men in the provinces, to inform them of the nature of the complaint, and the treatment it required. This measure appeared to be called for, since it was not to be expected, that at a distance from all literary medical societies and connexions, they would be acquainted with the characteristic features of the disease, or the therapeutic measures which it requires.

The medical department at Tiflis has given strict injunctions to the medical men accurately to ascertain the origin, course, and mortality of the disease, both in Persia as well as in the Russian provinces; but principally to investigate in what manner it has been propagated from the Persians to the inhabitants of our country (Russia.) It has also ordered, that particular attention be paid to see whether the cholera propagates itself with the wind, or if the changes of the weather have any influence on it; whether the symptoms of the complaint are more or less severe, and there is any difference between the mortality in Persia and India; and lastly, by *post-mortem* examinations, to explore the causes, and trace the effects of this unaccountable malady.

Accounts from Tiflis, dated the 10th of May, state, that the cholera which showed itself in Persia in 1822, and which till lately, had been kept away by the lofty mountains which separate Georgia from Persia, had this spring appeared in several parts on the other side of the mountains, even as far east as the borders of the Caspian sea, in the Persian province Gilhan, and in several of the neighbouring Russian provinces. During very warm and dry weather, and the prevalence of an easterly wind, it broke out in the month of May in the Russian province Talaschin, and shortly after in the plain of Magel, in a village of the Cravamkis district, where it destroyed ten men. Then the disease appeared in the small town called Lenkoran, where four men died of it. From the 22d of June to the 1st of the following July, no one died of this complaint in the neighbourhood of Lenkoran, neither among the soldiers, nor among the inhabitants; but, on the 1st of July it broke out again in the village of Kurgelan, five Russian miles ftom Lenkoran, and destroyed in five days seven persons. In the middle of July it disappeared entirely in the neighbourhood of Lenkoran. From Sallian the disease extended, sparing this time the citadel Baku, which is bounded to the south by mountains along the Kur, in the valleys of Schirvan, where it carried off several of the inhabitants; and, on the 13th of August, it broke out in the neighbouring mountains, and destroyed. in a short space of time, forty persons. In several

other places the cholera committed the like devastations, and unfortunately still continues to exist in the Russian provinces.

Cursory Observations on the Treatment of the Disease called Cholera Morbus, composed by the Medical Council of St. Petersburg, August 24th, 1825.—(*Translated from the Russian, Hufeland's Journal.*)—This peculiar disease, which consists in constant vomiting and diarrhœa, is not uncommon in the countries far south, and in 1817, it commenced to rage epidemically in India. It first showed itself in Jessoro, about a hundred miles from Calcutta, and then gradually extended to that place, carrying desolation wherever it appeared. After this it showed itself in the army at Mundellag and Yubulpore, and, in September 1818, broke out in Bombay. On the other side it spread to the coast of Coromandel, and carried off several thousand inhabitants ; then it appeared at Ceylon, Siam, and Malacca ; afterwards in China, and, lastly, in the Isle of France, a distance of three thousand miles from India. In 1821 and 1822, the disease committed the most dreadful ravages in Asia Minor, principally among the Persian army, which was encamped about Bagdad. It is also very probable that it has extended through Persia to the territory of Schirwan. The wind appears to have no effect in retarding the progress of the complaint, and it was particularly remarked, that it extended from Bengal to the Deccan, against a southwest wind, which continued to blow there for some months.

Although it is found, that all those who have communication with persons labouring under this complaint, are not attacked with it themselves, still it is extremely probable that the disease spreads by contagion. In the Isle of France, where so many persons died of the cholera, only twelve Europeans perished, since, on its first appearance, they quitted the place, and had recourse to all possible preventive means. Neither the change of weather, nor the temperature of the atmosphere, have any effect in stopping this dreadful malady, although experience proves, that persons living in damp places, bad houses, and of broken up constitutions, are the most subject to this disease. A great number in the English army in India perished from this complaint, before the troops changed their station and encamped in some elevated station. It has been generally remarked, that those parts where rice and luxuriant herbs grow, where after the overflowing of the Ganges and the Googl, there is much stagnant water, and in woody situations, the complaint made the most extensive ravages, and that the lofty parts were spared.

Symptoms and Characteristic Marks of the Disease. The

peculiar symptoms of this disease are, a constant vomiting and purging of watery and sometimes viscid slime; generally speaking, it is not mixed with bile, wherefore the name Cholera is improper. According to Barrells, there frequently exist from the beginning great weakness, with flying pains, a sense of numbness in the extremities, pain in the head, and extreme thirst. Then nausea and vomiting supervene, and the patient is affected with such violent cramps, that one person can scarcely keep him still. Sometimes the disease begins with purging, without any pain, and, at the same time, or shortly after, vomiting of watery slime comes on. The patient then experiences great weakness; the pulse sinks; the extremities and the surface of the body become cold; the eyes fall in, are half closed, and blood-shot. There is great anxiety depicted in the countenance, a burning heat in the stomach, and extreme thirst. The diarrhœa increases, and the patient becomes so restless and anxious, that he can scarcely remain quiet sufficiently long for the pulse to be counted; the pulse at this time, also, is very small. The cramps or spasms now commence, and generally proceed from the toes upwards; when they attack the breast, they occasional acute pain, and great difficulty of breathing. Cases have been observed in which the disease commenced with cramps, and where the vomiting and purging were secondary.

In the island of Ceylon, Davy observed that the blood, both in the arteries and veins, was of a dark colour, and that the breath of the patients contained a third less of carbonic acid than that of healthy persons. Finlayson states, that, in the island of Ceylon, several persons died in the course of a few hours of this disease without having cramps, or any of the characteristic symptoms of the complaint. It was also observed in the army, that, at the time of this epidemic, a large number of cattle suddenly perished, without any assignable cause whatever. All hopes of saving the patient are quite gone, when the coldness on the surface extends to the scrobiculus cordis; when the tongue becomes cold, and a profuse cold sweat covers the whole body, whereby the skin in the palms of the hands and soles of the feet becomes wrinkled. Generally, at the approach of these symptoms, the cramps leave; and these, together with the pains, entirely disappear before death; nay, even when the pulsation of the heart is no more to be felt, the patient feels himself better. Corbyn has, however, mentioned cases in which, to the last moments of their existence, the unfortunate sufferers experienced the most excruciating agonies, groaned, and threw themselves about on

the ground ; this was particularly observed where the disease continued to the third day. When, on the contrary, the spasms have disappeared ; when, with the vomiting and purging, there is no more watery slime, but some bile, and the coldness on the surface does not increase, then some hopes of the patient's recovery may be entertained.

On examination after death, if the disease has continued more than twenty-four hours, the stomachs and intestines are found dilated with flatus, and their internal surface covered with mucus. Neither in the stomach nor in the small intestines, is there any bile to be found. The vessels of the liver and the intestines are frequently gorged with blood, and the gall-bladder distended with black bile; the muscles flaccid, and the lungs fallen together.

Treatment.—This formidable disease, which does not last beyond the third day, and is often fatal within twenty-four hours, requires the most active treatment recommended by Corbyn generally known throughout the army, and which subsequent experience has proved to be most efficacious. It consists in giving the patient, immediately on the approach of the disease, 20 grains of calomel in powder (and not in the form of pills,) and then a mixture of 60 drops of laudanum and 20 drops of oil of peppermint in two ounces of water. In the first stage of the complaint, the blood leaves the surface ; wherefore the body must be rubbed with warm spirits, and the patient put in a warm bath, covered with warm clothing, and also take cordial medicines. The quicksilver and opium must, if circumstances require it, be repeated in an hour, or later, either in the same, or an increased dose. If the physician be called late to the case, the patient is frequently not able to keep the medicines on the stomach. Under such circumstances, Wallace gave two grains of opium with fifteen of calomel, mixed with two drachms of honey, which he puts into the mouth by degrees. The patient can generally take the medicine in this form, afterwards usually sleeps. If the symptoms return, the dose must be repeated. In the Isle of France, the same medicine is used, but in similar doses, and consequently with less success. The French physicians employ, instead of it, bitter salts, in two drachm doses ; but, from their Reports it appears, that in this one case, out of 440 patients, 194 died ; whilst in the other, of 133, there were 93 fatal cases. Taylor and Kinnys advise the use of counter-irritants to the abdomen ; and, on account of the slow operation of the emplastrum lyttæ, they recommend the skin, just at the scrobiculus cordis to be besmeared with sulphuric acid ; and,

as soon as the desired effect is produced, that the part should be washed with water, or, if necessary, with a solution of potash. Millwood, in the commencement, gave a drachm of calomel, with five grains of James' powder, and in two hours after ten grains of calomel, with the same dose of James' powder. For the patient's drink, he allowed sweet spirits of nitre. If the purging stops, the skin becomes warm and moist, when he gave the common magnesia, four scruples to the dose, which, according to his account, never caused vomiting, but only purged the patient two or three times. The same author also states, that early blood-letting is a very efficacious remedy in this disease ; but it often happens that, from the presence of the spasmodic contractions, the blood will not flow. Tyler recommends pure opium instead of the tincture, since he observed that the tincture, instead of stopping the vomiting, sometimes increased it : on this account, Bayle recommends the use of the tincture of opium in clysters in this disease. In general, the English physicians, who have observed this epidemic in India, lay great stress on calomel and opium as the the principal remedies in this complaint, and regard all other means merely as auxiliaries.

In consequence of the existence of this disease in some of the Russian provinces, the Council has drawn up a body of instructions for the direction of the young physicians who are gone expressly to observe and treat this malady. The treatment recommended is that employed by the best English practitioners, and consists in the administration of large doses of calomel and opium, early blood-letting, if reaction has taken place, the warm bath and warm clothing, together with counter-irritants to the surface, and the use of opiate injections. When the vomiting has stopped they advise a gentle laxative, such as carbonate of magnesia, or the cold drawn castor-oil to be given ; and, from the commencement of the complaint, the patients are to be put under quarantine orders, and to be separated as much as possible from those that are well. This last order is given from a conviction that the disease is contagious ; a point, however, which the Council has given strict orders to be particularly investigated.—*Edinburgh Med. and Surg. Journal.*

M. Hufeland *on Enlargement (Hypertrophy) of the Brain.*

The author of this article, has frequently observed. in ma-

king an inspection of those persons who have shown all the symptoms of hydrocephalus, and in whom but an extremely small quantity of serum was found in the ventricles of the brain, that this organ had acquired a much greater volume than the capacity of the cavity of the cranium could properly contain, and in consequence of which it had suffered compression. M. Hufeland inferred from this remark, that the brain, more particularly of infants, was a part of exceedingly active growth, becoming evolved much quicker than other organs.—If in this case, therefore, the cranium, from ossification of the sutures taking place too quickly, does not adapt itself to this early development of the brain, the consequence will certainly be compression, which will give rise to all the symptoms characteristic of hydrocephalus. The author goes still further: he thinks that the congestion which results from inflammation, and is the common cause of serous effusion in the brain, is produced by compression of this organ; and, consequently, that acute hyhrocephalus is often only a consequence of a similar enlargement (*physconie*) of the cerebral organ.

As to the rest, M. Hufeland only submits these reflections as worthy to excite the attention of the profession; and adds, that, if they shall be confirmed, they will afford an additional proof that it is of the highest importance carefully to attend to the education of infants, both physical and moral, avoiding with care all those causes which would excite too early a development of the brain. Thus, too early exercise of the intellectual functions, the use of spirituous liquors, too highly seasoned food, coffee, &c. should be carefully abstained from.—On the contrary, we must assist the development of muscular action, directing frequent ablutions of cold water to the head, and prescribing from time to time slight purgatives: these will prove, according to M. Hufeland, the best preservatives against this disorder, which is now, alas! too frequent.—*Lon. Med. and Phys. Journal.*

M. Scoutetten *on Enlargement of the Brain.*

Antoine Peisset, a young lad, five and a half years old, born of healthy and sound parents, exhibited an extremely large head, equalling in size that of a strong healthy adult; the development of which had proceeded so imperceptibly, as not to furnish his parents with any idea as to the time it first began to enlarge. The forehead was elevated, but not prominent:

the protuberances on the os occipitis had attained a very large size. For some time, this boy did not complain of any pain; he was not constrained to keep quiet by any other cause than the weight of his head, and, when he wished to walk or run, he suddenly threw himself forwards, and then generally fell. These inconveniences, however, did not seem to increase; and, during the last year, he frequently presented himself at the military hospital of Metz. There was nothing remarkable in his intellect; he understood and remembered very well what was said to him, but he did not recollect any occurrence of his previous life. When he sat down and remained quiet, he frequently fell asleep, but otherwise he had no remarkable heaviness. All the functions of young Peisset were executed naturally; and, without any cause appearing to give rise to it, suddenly they observed, in the beginning of September, 1823, his appetite fail, at the same time that he was very thirsty, and had a sort of flying pain in the epigastric region. The belly still remained soft; his pulse was hard, full, and frequent; but still they did not perceive any alteration in the functions of the brain, or in the head, although there was certainly a degree of heaviness, from which he was directly roused on speaking to him. His stools were abundant, favoured by the exhibition of castor oil twice, and by emollient enemas. These means caused the evacuation of several large worms, but in other respects he was not much relieved. During fifteen days, the morbid phenomena did not experience any material change. On the sixteenth, the patient was suddenly, (and for which no cause could be assigned,) seized with an aggravation of his symptoms. The functions of the brain became entirely abolished; the pupil was dilated, although the iris still retained the power of contraction in a high degree; his respiration was embarrassed; his pulse flagged, and became soft; and, about four o'clock in the afternoon, he expired.

Inspection of the body.—External appearances: Head extremely large, and very much resembling that of an adult of large stature; the posterior part very greatly developed; the eyes sunk in the orbits; the belly slightly enlarged; the inferior extremities rather small and thin.

Inspection of the head.—The skull was from a line and a half to two lines in thickness; the places where the sutures are situated did not appear thinner than the other parts; the meninges of the brain adhered very closely to the skull, and required rather powerful efforts to detach them. Mr. Scoutetten did not remark any alteration in the structure, but the vessels were distended with blood; the membrane was extreme-

ly red all over, and showed in many points very distinct exudations of blood; as also many white patches, formed by the thickening of the parts. The plexus choroides was at the same time highly injected. The brain was greatly enlarged, and exhibited throughout its structure much greater density than is generally met with in persons five years of age; its structure was of a reddish colour; but did not show any signs of morbid alteration. The enormous development of the brain seems to have taken place chiefly on the upper parts and sides of the hemispheres. He now made a perpendicular incision into the ventricles, of the depth of three inches, leaving only about an inch of the base undivided. The cavity of the ventricles contained only a very small quantity of reddish serum.—*Archives generales de Med.*

Accidents arising from Acupuncturation.

M. Aumont has related some remarks on the case of an officer, on whom he had practised acupuncturation of the abdomen, for extremely severe pains situated there, and which he could not relieve by any means he had used. The first needle was introduced two fingers' breadth from the umbilicus, and caused great pain; the second was then passed on a level with the first, along the inner edge of the muscle on the right side. This second puncture was scarcely made, when the patient fainted; and, on recovering himself, he was afflicted with very excruciating pain and heat in that part of the abdomen, which were quickly followed by general fever. The patient came into the Val de Grace, where this state lasted for some days, and then yielded to an antiphlogistic treatment; but the pains for which he had submitted to acupuncturation were not the least changed, nor did this method at all relieve him.

M. Beclard mentions, on this subject, that fainting is a common accident from acupuncturation, and which he had very recently observed in the case of an individual, into whose deltoid he had passed five needles, on account of an extremely severe rheumatic pain situated upon his shoulder, and which has since disappeared. He considers the operation as by no means free from risk, and quotes the case of a person into whose leg he had passed a needle, to relieve a severe pain there. No sooner was the needle introduced, (doing which gave great pain,) than the patient was seized with syncope, lasting for some time, and which did not yield without giving

rise to a high delirium. This nervous excitement gradually abated, but the patient remained the whole of the day in a state of torpor or dullness, which at length disappeared. An abscess was afterwards slowly formed at the seat of the puncture.—*Archives generales.*

IV. MATERIA MEDICA AND PHARMACY.

Of the Bark of the Root of the Pomegranate Tree against Tænia.

In the 'Nouvelle Bibliotheque Medicale' for November and December, several instances are given by MM. Deslandes, Sourya, and Bourgeoise, of the successful employment of the bark of the root of the punica granata, the pomegranate tree, in the expulsion of tænia. It was given in decoction, and generally expelled the worm in less than two hours. In some instances, slight vomiting took place; but usually the only inconvenience attending its administration was griping pains in the bowels. It is well known that this is a common remedy for tape-worm in the East Indies; and M. Deslandes states it to be frequently employed by the negroes in St. Domingo. Any medicine, it appears to us, that should be free from the unpleasant consequences which frequently attend the exhibition of the oil of turpentine, would be very desirable; and we should, therefore, wish to see the bark of the root of the pomegranate tree tried more extensively. We have so often observed distressing effects from the oil of turpentine, and found so many patients who could not be persuaded to repeat it, though they had previously experienced its good effects in expelling the worm, that we are frequently as much at a loss for a remedy as before its efficacy had been discovered.—*Lond. Med. Repository.*

Syrup for Irritations.

The sale of quack medicines is quite as lively among our Gallic neighbours as in our own enlightened country. Grocers, tinmen, and milleners vary their avocations by the sale of cures for hydrophobia, burns, fevers, &c.; but a *pharmacien* of genius has surpassed them all. 'The glory of M. B.' (M. Broussais,) says a French journalist, 'is complete.' The

physiological doctrine invades the apothecary's shop. Light begins to penetrate even into these dark recesses. A *pharmacien* has made himself the first man of the age: M. N. has composed a syrup for irritations. Hang thyself, brave Leroy! for thy universal panacea fades before the new discovery.—Make haste hither, readers of the Catechism of the physiological doctrine! your safety is assured. Your master has taught you that cerebral fever, apoplexy, inflammation of the brain, meningitis, mania, epilepsy, hypochondriasis, pneumonia, phthisis, scrofula, cancer, &c. &c., all past and present diseases, and all diseases to come, are nothing but irritations.—Take syrup, then, against these irritations, for that will be going to the root of things at once. He is no fool, this *pharmacien;* he knows what he is about. Incendiary quinquina, murderous camphor, are menaced with being left for ever on those foreign shores on which they are produced: their ancient legitimacy is about to disappear before the gainless usurpation of leeches and gum. The moment is favourable, and M. N., like many other men, has turned about in lucky time. He has devised a syrup which suits the present epidemic, that is to say, *irritation*.'—*Arch. Gen. de Med.*

MEDICAL LITERATURE OF THE UNITED STATES.

From the commencement of the present volume of the Monthly Journal of Medicine, we have abstained from noticing the contents of our cotemporaries, intending at the expiration of six months, to refer our readers to such papers as appeared particularly interesting in the Medical Journals of this country. The practice of giving a summary of these papers, has been adopted by others, since the commencement of our undertaking; and in the mean time the only Journal of Foreign Medicine, then extant, has been discontinued, two circumstances which render it desirable for us to increase the amount of foreign matter, although it be to the exclusion of papers of interest, which have already an extensive circulation in the United States. With this explanation of our motives for making a slight alteration in the Monthly Journal, we proceed to point out a few papers of peculiar interest, which

have been lately published in the Medical Journals of this country.

Anatomy and Physiology.

Under this head we notice in the Philadelphia Journal, a paper by Dr. Horner, relative to the discovery of the tensor tarsi muscle. Although the claims of Dr. H. to originality in the discovery and description of this muscle, have been controverted, particularly by Flajani of Italy, it appears from this and other publications on the same subject, that they are well founded. Dr. Codman whose anatomical investigations have appeared in successive numbers of the Philadelphia, has recently published a volume on the same subject, which the students of anatomy will do well to consult.

A paper, relative to the severe penalties inflicted in the New England states, upon those who procure subjects for dissection, was published in the last number of the New England Journal. It is addressed to members of Legislatures, but it addresses itself to physicians, who teach, to students who learn, and to patients who reap the benefit of anatomical knowledge.

"The whole history of anatomy and surgery will show that the business of dissection is carried on extensively in every scientific country, and by men of the purest morals, and greatest humanity. And the history of general society will show, that this *very useful business* is managed with so much prudence, *that the peace of society is but seldom disturbed thereby.*"

"Our whole conduct, and all our regulations and laws on this delicate subject, especially, should be coolly, humanely, and prudently managed, having reference to the benefit, the rights, the feelings, and the associations of the living; for the dead, on their own account, require no protection. The truth is, our fellow feelings, and associations towards the living, continue to be exercised towards them, when dead. This is of no importance in any way as respects the dead, but is often a fruitful source of evil, as well as good, to the living. And men of the most cultivated minds seem not to be sufficiently aware of this, when they make laws on this subject. There is another truth which should not be forgotten; namely, those whose duty it may be to dissect the human body, have a right to claim the protection of law, as well as other citizens, provided they conduct their business properly."

Surgery and Midwifery.

In the Philadelphia Journal, we find a paper by Dr. Dewees, on prolapsus uteri, detailing with great clearness the symptoms, and advising the use of a silver pessary, for the cure of the disease in question. A case of laceration of the uterus, without pain, is described by Dr. Cheeny, in the New England Journal for May, and in the same number is a paper by Dr. Channing, on a species of premature labour. The following communication from Dr. Beatty, contains remarks of practical interest.

"In my case book, to which I have referred, I find that in August, 1812, I attended the wife of a staymaker, who was delivered of a putrid child in the seventh or eighth month, which, she said, was the third that she had borne dead. I discovered so much of venereal affection, as to recommend that they should put themselves under the care of some experienced surgeon for the use of mercury. They applied to Mr. Colles; and when she was pregnant in the following year, Mr. Colles told me that they had not continued a sufficient time under his directions to satisfy him they were cured of the venereal complaint; which I found to be the case in July, 1813, when I delivered her again of a putrid child in the eighth month. I then declared that I never would attend her again, until Mr. Colles told me that he was satisfied with the result of the mercury used. They again returned to him, and fully attending to his directions, in October, 1814, I attended her, when she bore a living girl at the full period of gestation. She has had several living children since.

"In October, 1816, I delivered the wife of a cavalry officer of a putrid child on the eighth month. The gentleman had been on the Continent with his regiment, without his wife, and had contracted a slight venereal complaint, of which his surgeon considered him well before his wife joined him in France. I could not detect any venereal symptom in the parents, but was so satisfied with the cause of the child's death from the peculiar appearances on the body, that I recommended them to consult some eminent surgeon; and Mr. Todd was called in, who met the regimental surgeon with me, and advised the use of mercury, which was regularly persevered in by both for several weeks. After this course pregnancy was soon the result, and in November, 1817, I had the gratification of attending her when she had a living girl. She has had several living children since."

"I have," says Dr. Beatty, "met with several cases wherein very delicate women have borne dead children at the seventh month, but not putrid; and have, where I did not suspect venereal taint, constantly succeeded in avoiding the accident by a rigid confinement, even to one floor, and by a very strict attention to keep the bowels gently free, from the earliest period of gestation to the end of the eighth month; and several, to whom I gave permission to go out at that time, have thanked me, saying they were never so happy as in their confinement, and would not accept of my offered emancipation. I do not remember a single instance where good health, good looks, and a continuation of bearing living children, were not the rewards of the confinement."

"There is a species of abortion," says Dr. Channing, "which has received more attention than the above, which is equally unmanageable, and sometimes fatal in its consequence. It occurs in the early months, about the time for the third appearance of the catamenia, had not this function been suspended by conception. Boerhaave, Saccombe, and especially Dr. W. Hunter, have described this species. Saccombe supposes it to be owing to the occurrence of conception very soon, or immediately after a catamenial period is over. The uterus at this time is in a state of unusual excitement, which determines much blood to it, and by excessive nourishment of the fœtus, an undue development of the fœtus is brought about. I have thought this species might be explained in another way. The catamenial function has been regularly performed for some years. It has been quite healthy in its periods, and quantity. Conception takes place and suspends this function, and when well sustained, it perfectly compensates its absence. It may happen that the periodical function is not thus compensated, or rather that there is a stronger disposition in the womb to restore in itself what has been accidentally suspended, than to allow the new state of things to continue. It does this, and abortion is the consequence. This explanation is supported by the time at which this species most frequently occurs, it being at or near a catamenial period. Out of ten cases noticed particularly by Boerhaave, nine happened at the period.—It is supported by the practice which has been found most successful in these cases. This has been small bleedings in the first, second, and third months, once or more. The determination to the womb, has in many cases, been prevented by this course, and the fœtus carried to the full time.

Bloodletting in these cases will not always succeed. I have distinctly in recollection one case, in which it was practised.

where numerous abortions had been suffered. In the last attempt, it seemed to promise a favourable issue. The fœtus was carried to the fifth month. Great irritability, however, was manifested in the system for much of the time. It increased with the progress of pregnancy; convulsions at length occurred, and were fatal. In this case pregnancy was positively a disease. It had cured itself to be sure, by the process of abortion. But under this the system was sinking, and it was a sound practice which attempted to prevent farther exhaustion, by preventing abortion. In this case it should have been mentioned that hemorrhage, to an extreme degree, attended labour, whether premature or otherwise. The patient had in some instances, carried the child the full time. Her system had been disturbed originally by the frequency with which this had been the case."

An interesting paper has been published by Dr. Rodgers, in the New York Medical and Physical Journal, relative to the tying of large arteries to prevent inflammation of the principal joints. The following case seems at once to illustrate the utility and the safety of the practice.

"A lad, aged 16 years, was brought to the Hospital July 4th, 1821, with an extensive laceration of the arm, which he received from the discharge of a gun, while imprudently resting his arm upon the muzzle. The discharge entered the arm about the elbow joint, tearing off the integuments for six inches in length and three in breadth. The nerves, veins, and arteries, lay like cords on the surface of the wound. The muscles lacerated in such a manner as to destroy the appearance of their original structure. The bone laid bare, and in some places denuded of its periosteum; he lay for some hours weak and exhausted; his pulse was small and quick. The extent of the wound led the attending surgeon to believe that the brachial artery, or some of its large branches, were divided, and hemorrhage was expected from the wound, as the system recovered from the immediate shock of the accident. To lessen inflammation and prevent hemorrhage, the brachial artery was secured by ligatures as it passes out from the axilla; little hope was entertained of saving the arm, but to the astonishment of all who saw the case, there was merely sufficient inflammation in the wound to produce healthy suppuration and granulations. He suffered but little pain during his recovery; and I may venture to assert, that there was not more inconvenience experienced from this lacerated wound, than there would have been from a simple incised wound of the same extent, where the circulation had not been interrupted.

He recovered rapidly, and in the course of a few weeks left the Hospital in good health."

In the same Journal is described an operation for extra uterine fœtus, performed by Dr. Mott, of New York. The child had remained in the abdomen of the mother about three years, was in a perfect state, and of nearly the ordinary size. The mother died in about 36 hours after the operation.

Pathology and Therapeutics.

Under this head we have to notice a paper by Dr. Beck, on Laryngitis. The remedies recommended by this accomplished physician, are blood-letting until syncope is produced, emetics, blisters, purgatives, calomel, and whenever effusion has taken place, resource must be had to tracheotomy. In the late Journals are several accounts of epidemic fevers, as they have appeared in different sections of the country. Dr. Merrill, has described the yellow fever, which prevailed at Natches, in 1823; Dr. Dutton has published in the Philadelphia Medical Recorder, an essay on the autumnal fevers of Delaware county, Pennsylvania; Dr. Heustis, has described in Chapman's Journal, the epidemic fever which appeared in Alabama, in the summer and autumn of 1823; Dr. Hildreth, has published notes on the epidemic fever which has recently appeared at Marietta, and other parts of Ohio, and Dr. Chapman in the same Journal has continued his observations relative to epidemic diseases. A paper by Dr. Bell, on the subject of baths and mineral waters, will be perused with interest, for although it contains nothing particularly new, it presents a lucid view of what is known relative to the medical properties of water, employed at different temperatures, and holding various substances in solution.

Materia Medica and Pharmacy.

The New York Medical and Physical Journal contains a paper by Dr. Ludlow, on the medical properties of the acorus, calamus. The same Journal contains some remarks by Dr. Francis, relative to the use of elaterium in dropsy. The sulphate of quinine is at this time extensively employed, and it is said to be frequently adulterated. It becomes important to guard against imposition and ascertain whether and to what degree the remedy is adulterated.

THE

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THE TRANSACTIONS OF LEARNED SOCIETIES, &c.

AND EMBRACING A CONCISE

ANALYSIS OF THE MEDICAL JOURNALS OF THE UNITED STATES.

CONDUCTED BY AN ASSOCIATION OF PHYSICIANS.

Quæremus ex omnibus—ut levia semper rejiciamus, et non necessaria.

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